

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Type I Data Package

Prepared for:

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

Project: Olin Wilmington, MA Superfund Site/6107090016
Water Samples
Collected on 06/06/11

SDG# OLN70

CHECKED FOR COMPLETENESS OF PARAMETERS ORDERED BY:

GROUP 1250154 SAMPLE NUMBERS 6308068-6308076

PA Cert. # 36-00037 NY Cert. # 10670 NJ Cert. # PA011

NC Cert. # 521

TX Cert. # T104704194-08A-TX

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by:

Date: 06/28/2011

Dana M. Kauffman Manager

Xina m Kayfinar.

Any questions or concerns you might have regarding this data package should be directed to your client representative, Nicole Maljovec at Ext. 1537.



Table of Contents for SDG# OLN70

1.	Sampl	e Reference List 1
2.	Analy	sis Request, Field Chain-of-Custody Record 2
3.	Metho	dology Summary/Reference 5
4.	Analy	rsis Reports6
5.	Kempo	ore Data
	a.	Case Narrative-Conformance/Nonconform. Summary 19
	b.	Quality Control and Calibration Summary Forms 22
	c.	Sample Data 41
	d.	Standards Data 55
	e.	Raw QC Data 77
	f.	Extraction/Distillation/Digestion Logs 92
6.	Opex	Data 94
	a.	Case Narrative-Conformance/Nonconform. Summary 95
	b.	Quality Control and Calibration Summary Forms 98
	c.	Sample Data 126
	đ.	Standards Data 148
	e.	Raw QC Data 189
	f.	Extraction/Distillation/Digestion Logs 202

SDG# OLN70

7.	Hydra	azines by LC/MS/MS Data	204
	a.	Case Narrative-Conformance/Nonconform. Summary	205
	b.	QC Summary	208
	С.	Sample Data	213
	d.	Standards Data	228
	e.	Raw QC Data	250
	f.	Preparation Logs	256



Sample Reference List for SDG Number OLN70 with a Data Package Type of I 12670 - Olin Corporation

Project: Olin Wilmington, MA Superfund Site/6107090016

Lab Sample	Lab Sample	
Number	Code	Client Sample Description
6308068	SD1	OC-SW-MMB-SW/SD-1-XXX Grab Water
6308069	SD1	OC-SW-MMB-SW/SD-1-XMS Grab Water
6308070	SD1	OC-SW-MMB-SW/SD-1-MSD Grab Water
6308071	SD1-D	OC-SW-MMB-SW/SD-1-DUP Grab Water
6308072	SD4	OC-SW-MMB-SW/SD-4-XXX Grab Water
6308073	SD9	OC-SW-MMB-SW/SD-9-XXX Grab Water
6308074	PZ16R	OC-SW-PZ-16RR-XXX Grab Water
6308075	PZ17R	OC-SW-PZ-17RR-XXX Grab Water
6308076	-SD-1	OC-SW-SD-1-XXX Grab Water

	<preservative (4)<="" p="" type=""> <bottle (5)<="" p="" type=""></bottle></preservative>	Lancaster	Comments (Special Instructions)								•
7			<u>-</u>		\perp	+		1		1	1
16308068-7	. 5A	ie fowewe)	£8 b≥W	<u>, </u>	_ <u>i</u>	-	 		<u> </u>	<u> </u>	
9	√ • • •	PET SWHT (DOWN)				<u></u>	<u> </u>				<u> </u>
2			(Z) (+) (;				-		<u> </u>	-}-	
30							- :			_ i ţ	
9	5 3	ie fowiawa) je nowe ndwh				į	; i		: -	+	<u> </u>
7	. >	si€ (€820)	ιομι στ α ,	- 	× _	<u> </u>	×	÷	<u>:×</u> 	<u> </u>	<u> ×</u>
HSIOSEI	۰ >	(E000B - HELC)	t/ ≍ədç	_					×	×	×
ä	<u> </u>	-(42159)	PW B4	;	<u>:</u>	- ;	- ;	-	<u>!</u> _		
Ŋ	, 8	ehydelAcete dehyde			1	<u>!</u>	!		į	•	
(B)	. g	00 : НЬГС)₌			1	3	;		-	1	
	-	Anhydride (scic)	Dite : 11-1-1-				<u>-</u>	· 	 		<u> </u>
270	>	100 8033 - CCV/NDD)	N) JWC	;	_ `		-	 -	<u>. j</u>	- -	
ď	,			_						1	
1	· •	(96) (1/199)	<u>8}9+/0</u>			 	<u>-</u>	í		1	二
	₹ å	-(0100-517-SW) spool	L:0,7 ×/v		: -			-	1	<u>i</u>	+
	AG SA	(1SS boW) A9QN/	AMON		- -	 -	·	<u> </u>	<u> </u>	-	<u></u>
-		2 tainteting D to		2	.2	٠,	2	7	ব	4	4
ļ 1		(5) anieM s (D) dest0 to (D) elize	osuco principie	sw G	: <u>0</u>	0	<u>'o</u>	<u>'0</u>	SW G	SW SW	υ
-		(ਨੂ) a p:		<u>8</u>	š	S	S	SW.	<u>.</u> 8		SW
Ļ			Hisch	<u>∑ ഗ</u>	<u>≥</u> ∽	<u>R</u>	FS	TS.	S.	<u>د</u>	F.S
}	<u> </u>			<u></u>	. <u>⊢</u> ⋝	<u>.</u> ≥	. <u>-</u> .	<u>+</u>	<u> </u>	<u> </u>	<u></u>
	IEC		Collected	6/0/2011 1:00:00 PM	6/6/2011 1:00:00 PM	6/6/2011 1:00:00 PM	6/6/2011 4:00:00 PM	6/6/2011	6/6/2011 1:05:00 PM	6/6/2011 1.45:00 PM	6/6/2011 12:15:00
	MACTEC		Sample II.)	OC-SVV-MMB-SVV/SD-1- MSD	OC-SW-MMB-SW/SD-1-XMS	OC-SW-MMB-SW/SD-1-		8	OC-SW-PZ-16RR-XXX	OC-SW-PZ-17RR-XXX	OC-SW-SD-1-XXX

Special Instructions For Lab	N N N Annicon
	N N No Applicable
Notes.	1.) Fraction, T = Total, D = Dissolved S = SPLP, C = TCLP, N = No. Amiliants

2.) QC Codes: F3 = Field Sample, 18 = Trip Blank, FD = Field Dupticate, E8 = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Dupticate, PE = Performance Evaluation Sample, F8 = Field Blank

3) Sample Matrix: GW a Groundwater SW a Surface Water DW = Drinking Water SO + Sol SD + Sediment, RW + Blank Water, NAL + Non-Aqueous Liquid, PR + Product, D = On

4.) Preservation Type HA = Hydrochiloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodius Hydroxide, Zn = Znic Acatale, ME = Methanol, DI = DI Water 5.) Bottle Type G = Gless, P = Plastic, V = 40mt, VOA Gless Vist, AG = Amber Glass AV = 40mt, VOA Amber Glass Vial

	tine	
ı	hourthold	
	5 = 24	
	č	

Bate: 6/6	Date:/
Formaldehyde 3 day hold time Relinquished:	Relinquished:

Date:(6 Date: Time: 1730 Received:

Time: Temp @ receipt: 12 Deg C Date: 12/1/4

Cooler 22 N MADEP Requirement

Client Oin Conneiler	-			d	1250154/	430808-74	
		Client Project #:	#: 6107090016			AVOICE INFO	できるできた。 Shaded Afters for office upp only 表現 こうながらに
Address: 3855 North Ocoee St. Sulle 200	St. Suite 200	Work Site ID:	Wilmington, MA	, MA		Company Name: Olin Corp	Corp
	12	Reports Sent	Reports Sent To: Steve Morrow	**0		Company Contact: ERG Accounts Payable	Accounts Payable
Phone: 423-336-4511	Fax: 423-336-1466	3-1466 Email		SGMorrow@nin.com	Email Rpt:	Address: Sam	Same as Olvent
Requested Turneround Time (SPECIFY)	<u></u> -	Regulatory Programs: MADEP MCP	ЕР МСР	Superfund		Phone:	Email ONCOS/rev
Standard Rush		Report Requirements Level IV Package	IV Package	Level II Package			•
Required)		EUO Kequirements: MACTEC EQUI	C EQUIS EZ EDD	OO		Job #	Quote #
	The second secon					STORY OF THE STREET	
MACTI	C	- 8A AG AG	. 5	AG AG	> > (- <-Preservative Type (4)
	16.	(ව) dsi ව ාග ***	(DaNV)9 -	cetaldehyde	HMOU ;		Fed Ex Tracking # 867382503790
	(Z) e	rite (C) trOPA		9H - 00	189) əy	6608 b HMM ,	Shipped 1 Codler whice
	Praction	Compos Total#	2r+6 (30 DMF (Mo	008 boM)	Opex / Ke Perchlora Perchl	Price (Price (Pr	ر لاس≩
	6/6/2011 T FD SW 2:35:00 PM				×		
	6/6/2011 T M SW 2:35:00 PM S	4			×		
	_ ⊾	4		 	×		
- 2	TFS	4			×		
	٦ S	4		<u> </u> 	×		
	F	o l			×		
DUP 1:00	6/6/2011 T FD SW 1:00:00 PM T	G 2			 × 		
Notes:			S	ecial Instr	Special Instructions For Lab	rLab	
1) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable	SPLP, C = TCLP, N * NOLA	pplicable					
[27 UC COGER FS = Field Sample, TB = Frig Blank, FD = Frield Duptrate, EB = Equipment Blank, MS = Matrix Spike, MSD = Martix Spike Duptrate, FB = Performance Evaluation Ser 3) Sample Matrix GW = Groundwater, SW = Surface Water, DW = Dimiting Water SD = Self ment, BW = Blank Water Mail is Mondanan Linited to a post of a con-	= Trip Blank, FO = Field Duptrate, EB = Equipment Blank, MS = . SW × Surface Water, OW = Onnking Wester SO = Soil, SD = Soi	ite, E8 = Equipment Bit inking Weter SO = Soil	ank, MS = Matrix Sp. , SD = Sadiment B	ike, MSD = Matrix Sp W = Blank Water No	pike Duplicate, PE = P 84 = Nord-Adjects 19	Matra Spike, MSD ≈ Matrix Spike Duplicate, PE ≈ Performance Eveluation Sample, FB ≈ Freid Blank diment BW ≈ Blank Water NA is Non-Access for the D ≈ Down of the Spike	:B ≠ Field Blank
4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Suituric Acid, SH = SoquunkHydroxide, Zn = Zinc Acetale, ME S.) Bottle Type: G = Glass, P = Plastic, V = 40mL VDA Glass Vial, AG = Amber Glass, AV = 40mL VDA Amber Glass Vial.	Noid, NI = Nitric Acid, SA = S = 40mL VOA Glass Vial, AG	iufuric Acid, SH = Sodi = Amber Glass, AV = 4	un Hydroxide, Zn = IOmL VOA Amber G	Zinc Acetale, ME =	* Methanol, DI = DI Water		
Cr+6 = 24 houshhold time							Cooler 24/ N MADED Beningerent
Formaldehyde 3 day hold time	£						
Relinquished.	nare.	Date: 4 /4 / 11	_ Time: [Time: (/SQRecelved:	+	Date:	Time: Temp @ receipt: 1/0 Deg C
th)	Date:	 - -	Time:	Received		Date: d	-2



Environmental Sample Administration Receipt Documentation Log

Client/Project: MACTEC Shipping Container Sealed: (FS NO							
		6/1			_		·
					y Seal Pres	_	-
,		50-		d	iscrepancy s	ect unless otherwise ection	noted in the
Source	Source Code: Package: Offiled Not Chilled						
			Temperature of	Shipping Contai	iners	-	
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	0412951	2.8.0	TB	WI	4	B	
2 -		,				·	
3							
4	·						
5	·			· · · · · ·			
6				-			
Number of Trip Blanks received <u>NOT</u> listed on chain of custody. <u></u>							
Paperwork Discrepancy/Unpacking Problems							
· · ·	<u> </u>					_	
					•		
	<u> </u>		· · · · · · · · · · · · · · · · · · ·		-	·	
Unpack	Inpacker Signature/Emp#: 1454 Date/Time: 61714 1135						
		7/		. 6040 11			∵21, 2 -0 80.
			issued by Dept	t. 6042 Manageme	ent		

popular in managen



Method Summary/Reference for SDG# OLN70_I

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.jancasterlabs.com

02726 Opex in Water

Water samples are pH adjusted to 9 with hydroxide solution. Filtration is performed followed by HPLC analysis. Separation is accomplished using a C18 column and ACN/phosphate buffer mobile phase. A UV detector at 230 nm is used for quantitation.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8000B, December 1996.

02727 Kempore in Water

Water samples are analyzed using a solid phase cleanup procedure followed by filtration and HPLC analysis. Separation is accomplished using a C18 column and phosphate buffer mobile phase. A UV detector at 230 nm is used for quantitation.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8000B, December 1996.

10342 Hydrazines in Water

An aliquot of the sample is derivatized and directly analyzed by HPLC/MS/MS.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8315A modified, December 1996.



ANALYTICAL RESULTS

Prepared by:

Prepared for:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

Olin Corporation Suite 200 3855 North Ocoee Street Cleveland TN 37312

June 20, 2011

Project: Olin Wilmington, MA Superfund Site/6107090016

Submittal Date: 06/07/2011 Group Number: 1250154 SDG: OLN70 PO Number: REWI0012 Release Number: ERRE9813 State of Sample Origin: MA

Client Sample Description	Lancaster Labs (LLI) #
OC-SW-MMB-SW/SD-1-XXX Grab Water	6308068
OC-SW-MMB-SW/SD-1-XMS Grab Water	6308069
OC-SW-MMB-SW/SD-1-MSD Grab Water	6308070
OC-SW-MMB-SW/SD-I-DUP Grab Water	6308071
OC-SW-MMB-SW/SD-4-XXX Grab Water	6308072
OC-SW-MMB-SW/SD-9-XXX Grab Water	6308073
OC-SW-PZ-16RR-XXX Grab Water	6308074
OC-SW-PZ-17RR-XXX Grab Water	6308075
OC-SW-SD-1-XXX Grab Water	6308076

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC

MACTEC

Attn: Kelly Chatterton

COPY TO

ELECTRONIC MACTEC Attn: Chris Ricardi

COPY TO

Olin Chemicals

Attn: James Cashwell

ELECTRONIC COPY TO

1 COPY TO Data Package Group

ULH78 8686



Questions? Contact your Client Services Representative Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,

Dorothy M. Love - Group Leader ___

Doutty M. Love

OLH78 8887



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL N.D. TNTC IU	Reporting Limit none detected Too Numerous To Count International Units	BMQL MPN CP Units NTU	Below Minimum Quantitation Level Most Probable Number cobalt-chloroplatinate units nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	1	liter(s)
m3	cubic meter(s)	ul	microliter(s)

- less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
- ppm parts per million One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.
- ppb parts per billion

Dry weight basis

X.Y.

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Inorganic Qualifiers

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Е	Concentration exceeds the calibration range of	s	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	Ü	Compound was not detected
Ρ	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA <0.995
,Z	Defined in case narrative		

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

OLHIN BEES



Sample Description: OC-SW-MMB-SW/SD-1-XXX Grab Water

Wilmington MA Superfund Site

LLI Sample # WW 6308068 LLI Group # 1250154

Account

1250154 # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:00

Olin Corporation

Suite 200

Submitted: 06/07/2011 10:15 Reported: 06/20/2011 13:00 3855 North Ocoee Street

Cleveland TN 37312

SD1-- SDG#: OLN70-01BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc.	- 3 mm	W-846 8315A odified	ug/l	ug/1	ug/l	
10342 10342 10342	1,1-Dimethylhydrazine Hydrazine Methylhydrazine	57-14-7 302-01-2 60-34-4	N.D. N.D. N.D.	0.50 0.10 0.50	0.25 0.050 0.25	1 1 I

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 20:00	Meng Yu	1

OLM78 8689



Sample Description: OC-SW-MMB-SW/SD-1-XMS Grab Water

Wilmington MA Superfund Site

LLI Sample # WW 6308069 LLI Group # 1250154 Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:00

Submitted: 06/07/2011 10:15

Reported: 06/20/2011 13:00

Olin Corporation

Suite 200

3855 North Ocoee Street

Cleveland TN 37312

SD1-- SDG#: OLN70-01MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc.	Organics SW-84	6 8315A ied	ug/1	u g /1	ug/l	
10342 10342 10342	1,1-Dimethylhydrazine Hydrazine Methylhydrazine	57-14-7 302-01-2 60-34-4	57 12 44	0.50 0.10 0.50	0.25 0.050 0.25	1 1 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analys	ìя	Record
Landratory	Campre	THOTIO		VCCOLG

CAT	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tip	ne	Analyst	Dilution Factor
No. 10342	Hydrazines in Water	SW-846 8315A	1	11161001	06/10/2011		Meng Yu	1

OLN78 8818

Analysis Report



Page 1 of I

Sample Description: OC-SW-MMB-SW/SD-1-MSD Grab Water

Wilmington MA Superfund Site

LLI Sample # WW 6308070

LLI Group # 1250154 Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:00

Submitted: 06/07/2011 10:15

Reported: 06/20/2011 13:00

Olin Corporation

Suite 200

3855 North Ocoee Street

Cleveland TN 37312

SD1-- SDG#: OLN70-01MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc.	Organics SW-846 modifie		ug/l	ug/l	ug/l	
10342 10342 10342	l,I-Dimethylhydrazine Hydrazine Methylhydrazine	57-14-7 302-01-2 60-34-4	55 12 44	0.50 0.10 0.50	0.25 0.050 0.25	1 1 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analy	sis	Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
No. 10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011	21:03	Meng Yu	1

OLN78 8811

Analysis Report



Page I of I

Sample Description: OC-SW-MMB-SW/SD-1-DUP Grab Water

Wilmington MA Superfund Site

LLI Sample # WW 6308071

Account

LLI Group # 1250154 # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:00

Olin Corporation

Suite 200

Submitted: 06/07/2011 10:15 Reported: 06/20/2011 13:00 3855 North Ocoee Street

Cleveland TN 37312

SDG#: OLN70-02FD SD1-D

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc.	3	SW-846 831 modified	15A	ug/l	ug/l	ug/l	
10342 10342 10342	1,1-Dimethylhydrazine Hydrazine Methylhydrazine	•	57-14-7 302-01-2 60-34-4	N.D. N.D. N.D.	0.50 0.10 0.50	0.25 0.050 0.25	1 1 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Cample	Analvoio	Record
Laboratory	эашрте	WITGIARIE	RECOLU

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 21:50	Meng Yu	1

GLN78 8812



Page I of I

Sample Description: OC-SW-MMB-SW/SD-4-XXX Grab Water

Wilmington MA Superfund Site

LLI Sample # WW 6308072

LLI Group # 1250154 Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 16:00

Reported: 06/20/2011 13:00

Olin Corporation

Suite 200

Submitted: 06/07/2011 10:15

3855 North Ocoee Street

Cleveland TN 37312

SD4-- SDG#: OLN70-03

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc.		SW-846 E		ug/l	ug/l	ug/l	
10342 10342 10342	1,1-Dimethylhydrazin Hydrazine Methylhydrazine	ie	57-14-7 302-01-2 60-34-4	N.D. N.D. N.D.	0.50 0.10 0.50	0.25 0.050 0.25	I 1 I

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analysia	Record
Hanctacots	200775	LIMOT YOUR	3 NOOO++

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Pactor
	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011	22:06	Meng Yu	I

OLN76 2013



Sample Description: OC-SW-MMB-SW/SD-9-XXX Grab Water

Wilmington MA Superfund Site

LLI Sample # WW 6308073

LLI Group # 1250154 Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 11:00

Submitted: 06/07/2011 10:15

Reported: 06/20/2011 13:00

Olin Corporation

Suite 200

3855 North Ocoee Street

Cleveland TN 37312

SD9-- SDG#: OLN70-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc.		-846 8315A dified	ug/l	ug/l	ug/l	
10342 10342 10342	I,1-Dimethylhydrazine Hydrazine Methylhydrazine	57-14-7 302-01-2 60-34-4	N.D. N.D. N.D.	0.50 0.10 0.50	0.25 0.050 0.25	1 1 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 22:21	Meng Yu	1

OLETE BEI4



Sample Description: OC-SW-PZ-16RR-XXX Grab Water

Wilmington MA Superfund Site

LLI Sample # WW 6308074

LLI Group # 1250154 Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:05

Olin Corporation

Suite 200

Submitted: 06/07/2011 10:15 3855 No

Reported: 06/20/2011 13:00

3855 North Ocoee Street

Cleveland TN 37312

PZ16R SDG#: OLN70-05

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
HPLC (Organics	SW-846 800	0B	ug/l	ug/l	ug/1	
02727	Kempore in Water		123-77-3	N.D.	1,100	1,100	1
	The project QA/QC of the individual respis outside the 15%I the second column this column (primar report the analyte. When there is a det confirmation column has a low response This effect is attraction.	conse in one or oriteria on or the the to criteria on or the sample continuous the reporting for the continuous continuous the continuous conti	or more of the come of the analyticeria, and the ple raw data identification of the primary columns of limit is raisely and the columns are columns and the columns and the columns and the columns are columns and the columns and the columns are columns and the columns are columns and the columns and the columns are columns and columns are columns ar	lytical columns. merefore all dat dentifies the con and no detecting ised since the colon standard.	The response on a is reported from lumn used to on on the onfirmation column		
02726	Opex in Water		101-25-7	N.D.	100	20	1
Misc.	Organics	SW-846 831 modified	5 A	ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazi	.ne	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine		302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine		60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analysis	Record

CAT No. 02727	Analysis Name Kempore in Water	Method SW-846 8000B		Batch# 111580040A	Analysis Date and Time 06/09/2011 20:56	Analyst Michele D Hamilton	Dilution Factor
	Opex in Water Hydrazines in Water	SW-846 8000B SW-846 8315A modified	1	111610022A 11161001	06/10/2011 22:04 06/10/2011 22:37	James H Place Meng Yu	1 1

OLN78 8815



Sample Description: OC-SW-PZ-17RR-XXX Grab Water

Wilmington MA Superfund Site

LLI Sample # WW 6308075

ngton MA superfund site

LLI Group # 1250154 Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:45

Olin Corporation

Suite 200

Submitted: 06/07/2011 10:15

3855 North Ocoee Street

Reported: 06/20/2011 13:00

Cleveland TN 37312

PZ17R SDG#: OLN70-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
HPLC (Organics SW	7-846 8000B	ug/l	ug/1	ug/l	
02727	Kempore in Water	123-77-3	1,100	1,000	230	1
02726	Opex in Water	101-25-7	N.D.	100	20	1
	calibration check stand criteria. Therefore, data is reported.	d numerous times. Each dard injected after the this effect is attribute	sample was outs: d to the sample	ide the acceptance matrix and the		
Misc.	-	I-846 8315A	ug/l	ug/l	ug/l	
		dified				
10342	I.1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
	Kempore in Water	SW-846 8000B	1	111500040A		Michele D Hamilton	
02726	Opex in Water	SW-846 8000B	2	111610022A	06/10/2011 22:18	Michele D Hamilton	1 1
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 22:53	Meng Yu	1

OLN76 9816



Sample Description: OC-SW-SD-1-XXX Grab Water

Wilmington MA Superfund Site

LLI Sample # WW 6308076

LLI Group # 1250154 Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 12:15

Reported: 06/20/2011 13:00

Olin Corporation

Suite 200

Submitted: 06/07/2011 10:15

3855 North Ocoee Street

Cleveland TN 37312

-SD-1 SDG#: OLN70-07*

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
HPLC (Organics	SW-846	8000B	ug/1	ug/l	ug/l	
02727	Kempore in Water		123-77-3	1,400	1,000	230	1
			101-25-7	N.D.	100	20	1
02726	Opex in Water The sample was inject calibration check storiteria. Therefore data is reported.	andard in	rous times. Each	h time the respons	ase for opes in the side the acceptance	20	1
	The sample was inject calibration check storiteria. Therefore data is reported.	andard in e, this en	rous times. Eac njected after th ffect is attribu	h time the respons	ase for opes in the side the acceptance matrix and the	20 ug/1	1
	The sample was inject calibration check storiteria. Therefore data is reported. Organics	andard in	rous times. Each njected after the ffect is attributed at the second attributed at the second at the	n time the response sample was outs	ase for opes in the side the acceptance		-
fisc.	The sample was inject calibration check storiteria. Therefore data is reported. Organics	andard in this end of the second of the seco	rous times. Each njected after the ffect is attributed at the second attributed at the second at the	n time the response sample was outs	ase for opes in the side the acceptance matrix and the		1
	The sample was inject calibration check storiteria. Therefore data is reported. Organics	andard in this end of the second of the seco	rous times. Each njected after the ffect is attributed 8315A	n time the response sample was outsted to the sample ug/1	ase for opes in the side the acceptance matrix and the ug/l	ug/1	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	sampre	Analysis	Kecora	

CAT No.	Analysis Name	Method	Trial#		Analysis Date and Time	Analyst	Dilution Factor
02727	Kempore in Water	SW-846 8000B	1	111580040A	06/09/2011 21:08	Michele D Hamilton	1 1
02726	Opex in Water	SW-846 8000B	2	111610022A	06/10/2011 22:24	Michele D Hamilton	1
10342	Hydrazines in Water	SW-846 0315A	1	11161001	06/10/2011 23:09	Meng Yu	1

OLH78 8917

Kempore Data

Case Narrative Conformance/Nonconformance Summary



CLIENT: Olin Corporation

SDG: OLN70

Pesticide Residue Analysis

Fraction: Kempore

Kempore in Water

Matrix

Sample #	Client ID	Liquid Solid	Comments
6308074	OC-SW-PZ-16RR-XXX	x	
6308075	OC-SW-PZ-17RR-XXX	X	
6308076	OC-SW-SD-1-XXX	X	

See QC Reference List for Associated Batch QC Samples

Note: Form 10s could not be generated for LCS40158 and LCSD40158.

SAMPLE PREPARATION:

No problems were encountered with the preparation of the samples.

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

(Sample number(s): 6308074: Analysis: 02727)

The project QA/QC requirements were not met. The individual response in one or more of the continuing calibration standards is outside the 15%D criteria on one of the analytical columns. The response on the second column meets the %D criteria, and therefore all data is reported from this column (primary). The sample raw data identifies the column used to report the analyte. When there is a detection on the primary column and no detection on the confirmation column, the reporting limit is raised since the confirmation column has a low response for the continuing calibration standard. This effect is attributed to the sample matrix.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Site specific matrix QC samples were not submitted for this SDG. The batch matrix QC was performed on samples from another project. Therefore the matrix effects would not be relevant and matrix QC is not provided in the data package. Laboratory spike data (LCS) are provided.

All QC is within specification.

DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Abbreviation Key

UNSPK = Unspiked (for MS	S/MSD)	LOQ = Limit of Quantitation	OLN78	6626
MS = Matrix Spike		MDL = Method Detection Limit	1200	00000

6/24/2011 2:42:11 PM Page 1 of 2



CLIENT: Olin Corporation SDG: OLN70

Pesticide Residue Analysis

Fraction: Kempore

MSD = Matrix Spike Duplicate	ND = Not Detected	
BKG = Background (for Duplicate)	J = Estimated Value	
D = Duplicate (DUP)	E= out of calibration range	
LCS = Lab Control Sample		
LCSD = Lab Control Sample Duplicate	* = Out of Specification	

Narrative Reviewed and Approved 6/24/2011 by M. Susan Kreider

M. SUSAN KREIDER

SENIOR SPECIALIST

Quality Control and Calibration Summary Forms



Quality Control Reference List Pesticide Residue Analysis

CLIENT: Olin Corporation

SDG: OLN70

Fraction: Kempore

Analysis Kempore in Water Batch Number 111580040A

Sample Number	Analysis Date
PBLK40158	06/09/2011 19:41:00
LCS40158	06/09/2011 19:47:00
LCSD40158	06/09/2011 19:54:00
6308074	06/09/2011 20:56:00
6308075	06/09/2011 21:02:00
6308076	06/09/2011 21:08:00



Fraction: Kempore

Quality Control Summary Method Blank Pesticide Residue Analysis SDG: OLN70 Matrix: LIQUID

111580040 / PBLK40158 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Kempore in Water	06/09/11	N.D.	ug/l	230	1000



Quality Control Summary Laboratory Control Standard (LCS) Laboratory Control Standard Duplicate(LCSD)

SDG: OLN70 Matrix: LIQUID

Pesticide Residue Analysis

Fraction: Kempore

LCS: LCS40158	Batch: 111580040A (Sample number(s): 6308074-6308076)								
LCSD: LCSD40158	Spike	Spike LCS LCSD							
	Added	Added Conc Conc LCS LCSD %Rec %RPD							
Analyte	ug/l ug/l ug/l %Rec %Rec Limits %RPD Limit							Limits	
Kempore in Water	9500 8000 8300 84 87 70-130 4 30								

6D **INITIAL CALIBRATION - RETENTION TIME SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: X3593A

Calibration File: 1K11160

GC Column (1): SUP PAH

ID: 250 (mm)

Update File:

Date(s) Analyzed: 6/9/2011

6/9/2011

		RT OF	STANDA	RDS		MIDPOINT	- RT WI	WOOR
COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	ŘŤ	FROM	TO
Kempore	2.06	2.05	2.08	2.10	2,13	2.06	1.91	2.21

6E **INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: X3593A

Calibration File: 1K11160

GC Column (1): SUP PAH

ID: 250 (mm)

Date(s) Analyzed: 6/9/2011

6/9/2011

		CALIBRATION FACTORS							
COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	%RSD		
Kempore	4.90E-01		6.40E-01	7.56E-01	5.68E-01	6.01E-01	16.9		
					A	o/ DCD.	400		

Average % RSD:

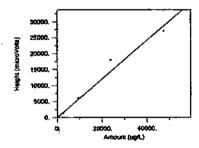
Calibration File Name: C:\CPWIN\DATA1\1K11160.CAL Version = 8

External standard calibration
Standard injection volume = 1
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 500
Amount units = ug/L
1 components with 5 levels each

1 Kempore

Retention time = 2.060 min., Search window = 0.150 min. Low alarm amount = 0, High alarm amount = 0 Group number = 0, Component constant = 0 No retention time reference component Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	950.600	465.3	0.4895011	1K11160.08A	6/9/2011 7:34:45
2	2376.500	1316.6	0.5540047	1K11160.07A	6/9/2011 7:29:04
3	9506.000	6082.4	0.6398451	1K11160.06A	6/9/2011 7:28:40
4	23765.000	17960.2	0.7557403	1K11160.05A	6/9/2011 7:28:17
5	47530.000	27003.1	0.5681264	1K11160.04A	6/9/2011 7:27:53



Calibration formula: Y = 0.601 X

Fit type = Avg CF with equal weighting, forced to origin

Coefficient of determination = 0.9697, Average error = 12.82%

Average CF = 0.6014 with RSD = 16.87%

VIR78: 8028

6D INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories

GC Column (2): CapCell CN

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: X3593B

Calibration File: 1K11160B

Update File:

Date(s) Analyzed: 6/9/2011

6/9/2011

		AT O	STANDA	RDS	1	MIDPOINT		DOW
COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3		LEVEL 5	PAT 1	FROM	TÓ
Kempore	4.75	4.71	4.70			4.75		4.90

ID: 250 (mm)

6E INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: X3593B

Calibration File: 1K11160B

GC Column (2): CapCell CN

ID: 250 (mm)

Date(s) Analyzed: 6/9/2011

6/9/2011

•								1
		CALIBRATION FACTORS						ĺ
COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5		%RSD	
Kempore	3.50E-01	3.93E-01	5,22E-01	6.55E-01		4.99E-01	25.3	-61
					Average	% BSD:	25.3	

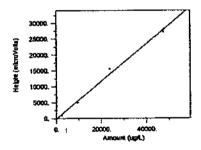
Calibration File Name: C:\CPWIN\DATA1\1K11160B.CAL Version = 15

External standard calibration
Standard injection volume = 1
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 500
Amount units = ug/L
1 components with 5 levels each

1 Kempore

Retention time = 4.745 min., Search window = 0.150 min. Low alarm amount = 0, High alarm amount = 0 Group number = 0, Component constant = 0 No retention time reference component Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	950.600	333.1	0.3503657	1K11160B.08A	6/9/2011 7:35:00
2	2376.500	934.4	0.3931739	1K11160B.07A	6/9/2011 7:29:19
3	9506.000	4962.9	0.5220817	1K11160B.06A	6/9/2011 7:28:54
4	23765.000	15560.3	0.6547587	1K11160B.05A	6/9/2011 7:28:32
5	47530.000	27219.8	0.572687	1K11160B.04A	6/9/2011 7:28:08



Calibration formula: Y = 0.59 X + -130.763

Fit type = Linear with equal weighting

Coefficient of determination = 0.9931, Average error = 14.62%

Average CF = 0.4986 with RSD = 25.27%

7E **CALIBRATION VERIFICATION SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: X3593A

۶.

Init. Calib Date(s): 06/09/11

06/09/11

GC Column (1): SUP PAH

ID: 250 (mm)

Date Analyzed: 06/09/11

Lab File ID: 1K11160.20R

Time Analyzed: 20:43

Lab Standard ID: KEMP3EO

Initial Calibration: 1K11160

COMPOUND	RT	RT WIND FROM	то	CALC AMOUNT	MOM AMOUNT	%D
Kempore	2.03		2.21	9074.31	9506.00	-4.5

Average of %D:

4.5

7E **CALIBRATION VERIFICATION SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: X3593B

Init. Calib Date(s): 06/09/11

06/09/11

GC Column (2): CapCell CN

ID: 250 (mm)

Date Analyzed: 06/09/11

Lab File ID: 1K11160B.20R

Time Analyzed: 20:43

Lab Standard ID: KEMP3EO

Initial Calibration: 1K11160B

COMPOUND	RT	RT WINE FROM	YOO TO	CALC AMOUNT	NOM AMOUNT	%D
Kempore	4.90	4.60	4.90	7827.94	9506.00	-17.7

Average of %D:

17.7

7E **CALIBRATION VERIFICATION SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: X3593A

ID: 250 (mm)

Init. Calib Date(s): 06/09/11

06/09/11

GC Column (1): SUP PAH

Date Analyzed: 06/09/11

Lab File ID: 1K11160.31R

Time Analyzed: 21:52

Lab Standard ID: KEMP3EP

Initial Calibration: 1K11160

COMPOUND	RΥ	RT WINDOW FROM TO		CALC AMOUNT	NOM AMOUNT	%D
Kempore	2.02	1.91	2.21	8562.45	9506.00	-9.9

Average of %D:

9.9

7E CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: X3593B

Init. Calib Date(s): 06/09/11

06/09/11

GC Column (2): CapCell CN

1D: 250 (mm)

Date Analyzed: 06/09/11

Lab File ID: 1K11160B.31R

Time Analyzed: 21:52

Lab Standard ID: KEMP3EP

Initial Calibration: 1K11160B

COMPOUND	RT .	RT WIND	TO OT	CALC AMOUNT	NOM AMOUNT	%D
Kempore	4.93	4.60	4.90			-22.4

Average of %D:

22.4

8D **ANALYTICAL SEQUENCE**

Sequence: 1K11160

Lab Name: Lancaster laboratories

Contract:

Lab Code:

Case No.:

SAS No:

SDG No.:

GC Column: SUP PAH

ID: 250

Instrument: X3593A

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

17	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File	
001	KEMP5AA	KEMP51124C	06/09/2011	19:04:31	1K11160	1
002	KEMP4AA	KEMP41124C	06/09/2011	19:10:43	1K11160	1
003	КЕМРЗАА	KEMP31124C	06/09/2011	19:16:56	1K11160	١
004	KEMP2AA	KEMP21124C	06/09/2011	19:23:08	1 K 11160	1
005	KEMP1AA	KEMP11124C	06/09/2011	19:29:20	IK11160	1
006	MDKRXAA	MDKRX1124C	06/09/2011	19:35:32	1K11160	1
007	PBLK40158	BLANKA	06/09/2011	19:41:44	1K11160	
008	LCS40158	LCSA	06/09/2011	19:47:57	1K11160]
009	LCSD40158	LCSDA	06/09/2011	19:54:10	1K11160	1
010	PBLK26160	BLANKA	06/09/2011	20:00:23	1K11160	Ì
011	LC\$26160	LCSA	06/09/2011	20:06:35	1K11160	
012	LCSD26160	LCSDA	06/09/2011	20:12:48	1K11160]
013	ISC1-	6308055	06/09/2011	20:19:01	1K11160]
014	ISC1-	6308056	06/09/2011	20:25:13	1K11160]
015	ISC1-	6308057	06/09/2011	20:31:26	1K11160	
016	ISC1D	6308058	06/09/2011	20:37:38	JK11160	╛
017	КЕМРЗЕО	KEMP31124C	06/09/2011	20:43:51	1K11160]
018	ISC2-	6308059	06/09/2011	20:50:04	1K11160	
019	PZ16R	6308074	06/09/2011	20:56:17	1K11160]
020	PZ17R	6308075	06/09/2011	21:02:30	1K11160]
021	-SD-1	6308076	06/09/2011	21:08:44	1K11160]
022	5-XXX	6309550	06/09/2011	21:14:57	1K11160	
023	1-XXX	6309553	06/09/2011	21:21:10	1 K 11160]
024	2-XXX	6309554	06/09/2011	21:27:23	1K11160	J
025	S-XXX	6309555	06/09/2011	21:33:37	1K11160]
026	EDSD0	6310720	06/09/2011	21:39:50	1K11160	
027	EDSD1	6310721	06/09/2011	21:46:03	IK11160]
028	КЕМРЗЕР	KEMP31124C	06/09/2011	21:52:16	1K11160	
029	EDSD2	6310722	06/09/2011	21:58:29	1K11160]
030	EDSD5	6310723	06/09/2011	22:04:43	1K11160	
031	ММВ-2	6310724	06(09/2011	22:10:56	1K11160	
032	КЕМРЗЕQ	KEMP31124C	06/09/2011	22:17:09	1K11160]
					·	

8D ANALYTICAL SEQUENCE

Sequence: 1K11160B

Lab Name: Lancaster laboratories

Contract:

Lab Code:

Case No.:

SAS No:

SDG No.:

GC Column: CapCell CN

ID: 250

Instrument: X3593B

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
i	CONDITIONER	06/09/2011	18:45:54	1K11160B
	CONDITIONER	06/09/2011	18:52:06	1K11160B
	CONDITIONER	06/09/2011	18:58:19	1K11160B
KEMP5AA	KEMP51124C	06/09/2011	19:04:31	IK11160B
KEMP4AA	KEMP41124C	06/09/2011	19:10:43	1K11160B
КЕМРЗАА	KEMP31124C	06/09/2011	19:16:56	1K11160B
KEMP2AA	KEMP21124C	06/09/2011	19:23:08	1K11160B
KEMP1AA	KEMP11124C	06/09/2011	19:29:20	1K11160B
MDKRXAA	MDKRX1124C	06/09/2011	19:35:32	1K11160B
PBLK40158	BLANKA	06/09/2011	19:41:44	1K11160B
LCS40158	LCSA	06/09/2011	19:47:57	1K11160E
LCSD40158	LCSDA	06/09/2011	19:54:10	1K11160E
PBLK26160	BLANKA	06/09/2011	20:00:23	1K11160E
LCS26160	LCSA	06/09/2011	20:06:35	1K11160E
LCSD26160	LCSDA	06/09/2011	20:12:48	1K11160F
ISC1-	6308055	06/09/2011	20:19:01	1K11160E
ISC1-	6308056	06/09/2011	20:25:13	1K11160E
ISC1-	6308057	06/09/2011	20:31:26	1K11160E
ISC1D	6308058	06/09/2011	20:37:38	1K11160E
КЕМРЗЕО	KEMP31124C	06/09/2011	20:43:51	1K11160F
ISC2-	6308059	06/09/2011	20:50:04	1K11160E
PZ16R	6308074	06/09/2011	20:56:17	IK11160I
PZ17R	6308075	06/09/2011	21:02:30	IK11160F
-SD-I	6308076	06/09/2011	21:08:44	1K11160E
5-XXX	6309550	06/09/2011	21:14:57	1K11160E
1-XXX	6309553	06/09/2011	21:21:10	1K11160E
2-XXX	6309554	06/09/2011	21:27:23	1K11160I
S-XXX	6309555	06/09/2011	21:33:37	1K111601
EDSD0	6310720	06/09/2011	21:39:50	1K11160I
EDSD1	6310721	06/09/2011	21:46:03	1K11160I
КЕМРЗЕР	KEMP31124C	06/09/2011	21:52:16	1K11160I
EDSD2	6310722	06/09/2011	21:58:29	1K11160I
EDSD5	6310723	06/09/2011	22:04:43	1K111601

8D ANALYTICAL SEQUENCE

Sequence: 1K11160B

Lab Name: Lancaster laboratories

Contract:

Lab Code:

034 035. Case No.:

SAS No:

SDG No.:

GC Column: CapCell CN

Instrument: X3593B

ID: <u>250</u>

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File		
MMB-2	6310724	06/09/2011	22:10:56	IK11160B		
КЕМРЗЕQ	KEMP31124C	06/09/2011	22:17:09	IK11160B		

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

PZ17R

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111580040A

Lab Code:

Case No.:

ID:

SAS No.:

SDG No.: OLN70

Lab Sample ID: 6308075

6/9/2011

Instrument ID (1): X3593A

Date(s) Analyzed: 6/7/2011

Instrument ID (2): X3593B

GC Column (1):

(mm)

GC Column (2):

ID:

(mm)

ANALYTE	COL	RT	FROM	то	CONCENTRATION	%D
Kempore	1	2.10	1.91	2.21	1100	
	2	4.63	4.60	4.90	550	66.7

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

-SD-1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111580040A

Lab Code:

Case No.:

SAS No.:

SDG No.: OLN70

Lab Sample ID: 6308076

Date(s) Analyzed: 6/7/2011

6/9/2011

Instrument ID (1): X3593A

Instrument ID (2): X3593B

GC Column (1):

ID:

(mm)

GC Column (2):

ID:

(mm)

ANALYTE	COL	RT	FROM	то	CONCENTRATION	%D
Kempore	1	2.12	1.91	2.21	1400	
	2	4.60	4.60	4.90	1100	24.0

Sample Data



Fraction: Kempore

LOQ/MDL Summary Pesticide Residue Analysis

SDG: OLN70

02727: Kempore in Water	Default	Default	Units
Analyte Name	MDL	LOQ	
Kempore in Water	230	1,000	ug/l

1D

SAMPLE CODE NO.

ORGANICS ANALYSIS DATA SHEET

PZ16R

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111580040A

Lab Code:

SAS No.:

SDG No.: OLN70

Matrix: (soil/water) WATER

Lab Sample ID: 6308074

Sample wt/vol:

10 (g/ml) ml

Case No.:

Lab File ID: 1K11160.22R

% Moisture:

Decanted: (Y/N)

Date Received: 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 6/7/2011

Concentrated Extract Volume:

10000 (uL)

Date Analyzed: 6/9/2011

Injection Volume:

35 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 123-77-3 COMPOUND

(UG/L or UG/KG) ug/l

Q

Kempore

1100'U

Lancaster Laboratories-Single Component Data Summary

ml

Sample Name: 6308074 RI PZ16R

Sample ID: AA Analyst: 1566

Batchnumber: 111580040A SDG: OLN70

State: MA

Sample Amount: 10 Analyses: 02727 10342

Analysis Report (A)

JUN 09, 2011 20:56:17 CP09-X3593A

ml

Instrument Result file Calibration file Method file

Injected on

Kempore

1K11160.22R 1K11160.CAL

: KEMP.MET

Analysis Report (B)

Injected on Instrument JUN 09, 2011 20:56:17 CP09--X3593B

Result file Calibration file Method file

1K11160B.22R 1K11160B.CAL : KEMPB.MET

Peak name

Min <u>Max</u> 1.91 2.14 2.21

Height <u>Amount</u> 630 1048.289917

Total Volume: 10

Summary Report

Compound Name

Column

Amount Found

LOQ <1000 <u>MDL</u> Qualifiers

%Difference

Comments

✓ Kempore Units: ug/l

Reviewed by:

Date:

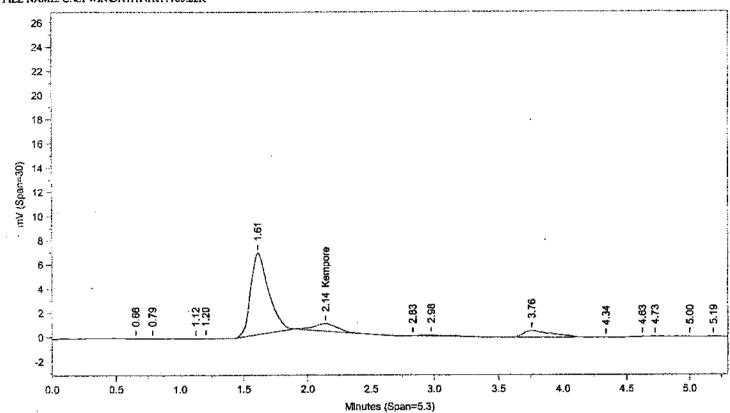
Verified by:

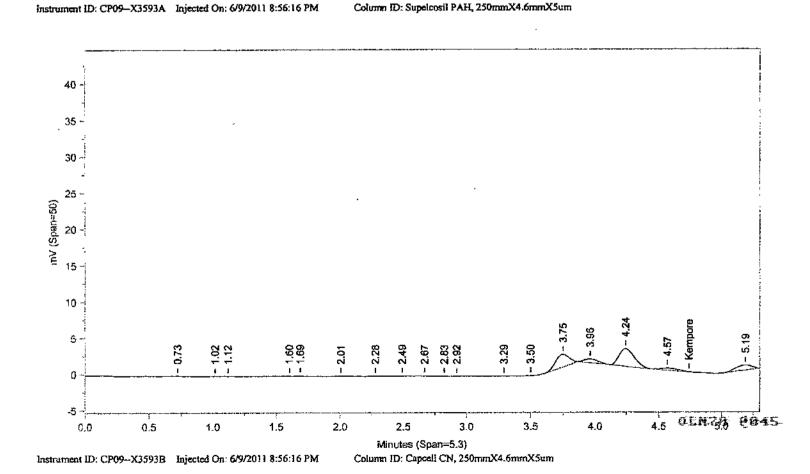
<230

Date:

JUN 1 7 2011

Valerie Tomayko Senior Specialist FILE NAME: C:\CPWIN\DATA1\1K11160.22R





Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 0

Calibration Type: External

Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Area Reject: 0

Calibration Type: External

Quantiation: Height

Sample Weight: 10

Analyst: 1566

Dilution Factor: 10

RT A

Height A

Amount A Compound A

RTB

Height B

Amount B Compound B

2.144

630

1048.29 Kempore

0

. Kempore

Files:

Area File: C:\CPWIN\DATA1\1K11160.22A

Area File: C:\CPWIN\DATA1\1K11160B.22A

Method A: C:\CPWIN\DATA1\KEMP.MET

Method B: C:\CPWIN\DATAI\KEMPB.MET

Calibration File A: C:\CPWIN\DATA1\1K11160.CAL

Calibration File B: C:\CPWIN\DATA\\1K11160B.CAL

Format A: C:\CPWIN\DATA\\OPEXD.FMTA

Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/9/2011 9:01:42 PM

File Reported On: 6/9/2011 at 9:01:50 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

PZ17R

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111580040A

Lab Code:

Case No.:

SAS No.:

SDG No.: OLN70

Matrix: (soil/water) WATER

Lab Sample ID: 6308075

Sample wt/vol:

<u>10</u> (g/ml) ml

Lab File ID: 1K11160.23R

% Moisture:

Decanted: (Y/N)

Date Received: 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 6/7/2011

Concentrated Extract Volume:

Injection Volume:

10000 (uL)

pH:

Date Analyzed: 6/9/2011

35 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/l

Q

123-77-3

Kempore

1100P

GLN78 8847

Lancaster Laboratories-Single Component Data Summary

Batchnumber: 111580040A PZ17R Sample ID: AA Sample Name: 6308075 RI Analyst: 1566 SDG: OLN70 State: MA Total Volume: 10 Sample Amount: 10 mi mi Analyses: 02727 10342 Analysis Report (B) Analysis Report (A) Injected on Instrument JUN 09, 2011 21:02:30 CP09-X3593B JUN 09, 2011 21:02:30 CP09--X3593A Injected on Instrument 1K11160B.23R Result file : 1K11160.23R Result file Calibration file 1K11160B.CAL Calibration file : 1K11160.CAL Method file : KEMPB.MET Method file : KEMP.MET <u>R.T.</u> <u>Max</u> Height <u>Amount</u> Peak name <u>Min</u> Peak name <u>R.T.</u> Max <u>Amount</u> 552,341797 4.90 2.21 638 1061.152222 Kempore 4.60 4.63 1.91 2.10 Kempore **Summary Report** LOQ MDL Qualifiers %Difference Comments Amount Found Compound Name <u>Column</u> <230 <1000 ✓ Kempore Units: ug/l

Verified by:

Date:

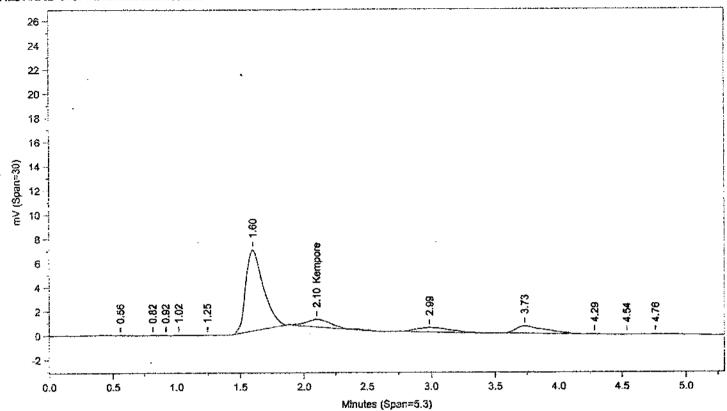
Valerie Tomayko Senior Specialist

jun 1 / 2011

Reviewed by:

Date:

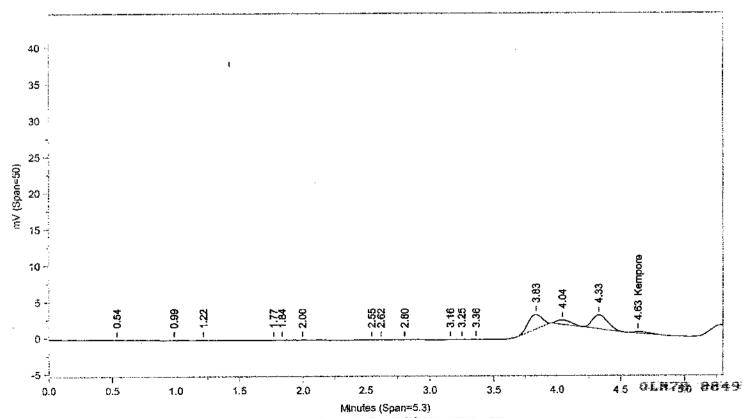
FILE NAME: C:\CPWIN\DATAI\IK11160.23R



02727

Instrument ID: CP09--X3593A Injected On: 6/9/2011 9:02:29 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 9:02:29 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

T. 111580040A 02727 6308075 RI AAPZ17R

Oven Parameters: 100% Phosphate Buffer

Volume inj: I

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 0 Quantitation: Height

Calibration Type: External

Detector B Parameters:

Threshold: -5

Width: 0.1

Area Reject: 0 Quantitaion: Height

Calibration Type: External

Sample Weight: 10

Analyst: 1566

Dilution Factor: 10

Amount A Compound A Height A

RT B Height B Amount B Compound B

2.102

1061.152 Kempore 638

4.635

552.342 Кеттроге 195

Files:

RTA

Area File: C:\CPWIN\DATA1\1K11160.23A Area File: C:\CPWIN\DATA1\1K11160B.23A Method A: C:\CPWIN\DATA1\KEMP.MET Method B: C:\CPWIN\DATA\\KEMPB MET Calibration File A: C:\CPWIN\DATA1\IK11160.CAL Calibration File B: C:\CPWIN\DATA\\IK11160B.CAL Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA!\OPEXD.FMTB

Area File Created On: 6/9/2011 9:07:54 PM File Reported On: 6/9/2011 at 9:08:03 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

-SD-1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111580040A

Lab Code:

Case No.:

SAS No.:

SDG No.: OLN70

Matrix: (soil/water) WATER

Lab Sample ID: 6308076

Sample wt/vol:

10 (g/ml) ml

Lab File ID: 1K11160.24R

% Moisture:

Decanted: (Y/N)

Date Received: 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 6/7/2011

Concentrated Extract Volume:

10000 (uL)

Date Analyzed: 6/9/2011

Injection Volume:

35 (uL)

GPC Cleanup: (Y/N) N

Dilution Factor: 1

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 123-77-3 COMPOUND

Kempore

(UG/L or UG/KG) ug/l

Q 1400

OEN78 5851

Lancaster Laboratories-Single Component Data Summary

6308076 RI -SD-1 Batchnumber: 111580040A Sample Name: Sample ID: AA Total Volume: 10 Analyst: 1566 SDG: OLN70 State: MA Sample Amount: 10 ml ml Analyses: 02727 10342 Analysis Report (A) Analysis Report (B) JUN 09, 2011 21:08:44 CP09-X3593B JUN 09, 2011 21:08:44 Injected on Injected on Instrument Instrument CP09--X3593A Result file Result file 1K11160B.24R 1K11160.24R Calibration file Calibration file 1K11160B.CAL 1K11160.CAL Method file Method file : KEMPB.MET KEMP.MET Peak name Min R.T. <u>Max</u> Height **Amount** Peak name <u>Min</u> <u>R.T.</u> Max **Height** <u>Amount</u> 4.60 1394.040649 1072.153320 4.60 4.90 502 Kempore 1.91 2.12 2.21 838 Kempore **Summary Report** Compound Name Amount Found LQQ <u>MDL</u> Qualifiers %Difference Comments . 139. ✓ Kempore <1000 <230 Units: ug/l Verified by:

Date:

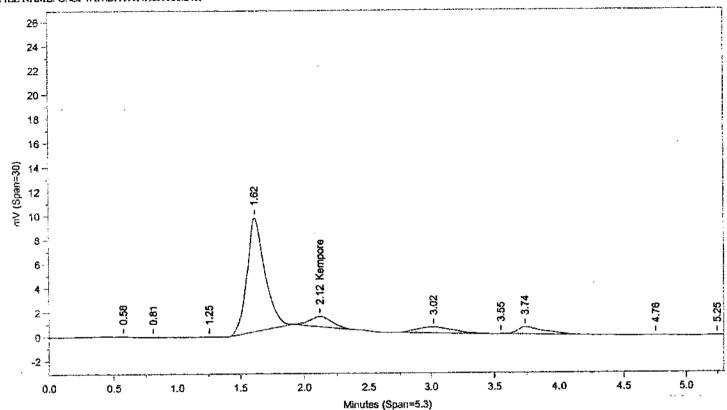
Valerie Tomayko Senior Specialist

JUN 1 7 2011

Reviewed by:

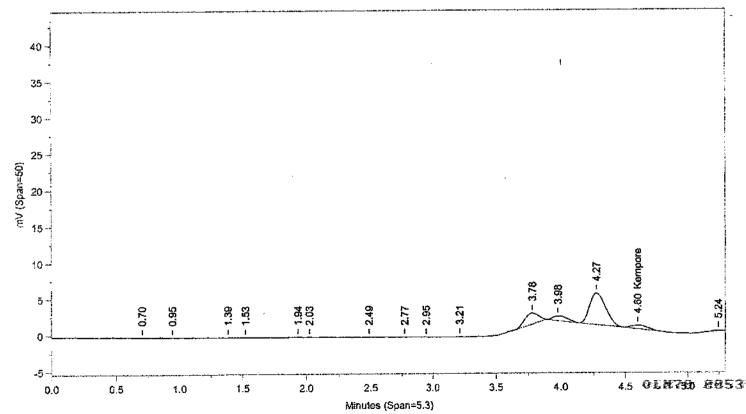
Date:

FILE NAME: C:\CPWIN\DATA1\1K11160.24R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 9:08:43 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5mm



Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: I

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 0
Quantitation: Height

Calibration Type: External

Detector B Parameters:

Threshold: -5

Width: 0.1

Area Reject: 0

Calibration Type: External

Quantitation: Height

Sample Weight: 10

Analyst: 1566

Dilution Factor: 10

RT A Height A

A Amount A Compound A

RTB Height B

Amount B Compound B

2.124

838 1394.041 Kempore

4.6

502 1072.153 Kempore

Files:

Area File: C:\CPWIN\DATA1\1K11160.24A
Area File: C:\CPWIN\DATA1\1K11160B.24A

Method A: C:\CPWIN\DATA1\KEMP.MET

Method B: C:\CPWIN\DATA1\KEMPB.MET

Calibration File A: C:\CPWIN\DATA1\1K11160.CAL Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/9/2011 9:14:08 PM

File Reported On: 6/9/2011 at 9:14:17 PM

Standards Data

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \cp9\C-Drive\CPWIN\data1\1K11160.seq Chromatography Directory: \cp9\C-Drive\CPWIN\data1

Method Directory: \cp9\C-Drive\CPWINdata1

Number of Entries: 35

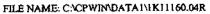
<u>Samplename</u>	<u>Code</u>	ΙD	<u>FileName</u>	Method	_	mp Amt	DF	<u>Int Std</u>	Ç	Batch Number	<u>Analysis</u>
1 CONDITIONER	MISC	AA	1K11160.01R		KEMP.MET	. 1	1	1	0	1115999999	
2 CONDITIONER	MISC	AA	1K11160.02R		KEMP.MET	1	1	1	0	1115999999	
3 CONDITIONER	MISC	AA	1K11160.03R		KEMP.MET	1	1	1	0	1115999999	
(4)XEMP51124C	IÇAL	AA	1K11160,04R		KEMP.MET	1	1	1	5	1115999999	
(5)KEMP41124C	ICAL	AA	1K11160.05R		KEMP.MET	1	1	1	4	1115999999	
(€) KEMP31124C	ICAL,	AA	1K11160.06R		KEMP.MET	, 1	1	1	3	1115999999	
∰KEMP21124C	ICAL	AA	1K11160.07R		KEMP,MET	1	1	Ť	2	1115999999	
(8 KEMP11124C	ICAL	AΑ	1K11160.08R		KEMP.MET	1	1	1	1	1115999999	
(g/MDKRX1124C	IÇAL	AA	1K11160.09R		KEMP.MET	1	1	1	0	1115999999	
(10)BLANKA 6/7/11 RI	BLK	AA	1K11160.10R		KEMP,MET	10	10	1	0	111580040A	02727
(11) LCSA 6/7/11 RI	LCS	AA	1K11160.11R		KEMP.MET	10	10	1	0	111580040A	02727
(12)LCSDA 6/7/11 RI	LCSD	AA	1K11160.12Fl		KEMP.MET	10	10	1	0	111580040A	02727
13 BLANKA 6/9/11	BLK	AA	1K11160.13R		KEMP.MET	10	10	1	0	111600026A	02727
14 LCSA 6/9/11	LCS	AA	1K11160.14R		KEMP.MET	10	10	1	0	111600026A	02727
15 LCSDA 6/9/11	LÇSĎ	AA	1K11160.15R		KEMP.MET	10	10	1	0	111600026A	02727
16 6308055 FI	Т	AA	1K11160.16R		KEMP.MET	10	10	1	0	111580040A	02727
17 6308056MS RI	MS	AA	1K11160.17R		KEMP.MET	10	10	1	0	111580040A	02727
18 6308057MSD RI	MSD	AA	1K11160.18R		KEMP.MET	10	10	1	0	111580040A	02727
19 6308058 RI	Ţ	AA	1K11160.19R		KEMP.MET	10	10	1	0	111580040A	02727
(20) KEMP31124C	CCAL	EO	1K11160.20R		KEMP.MET	1	1	1	0	1115999999	
21, 6308059 RI	Ŧ	AΑ	1K11160.21R		KEMP.MET	10	10	1	0	111580040A	02727
(22) 6308074 RI	Т	AA	1K11160.22R		KEMP.MET	10	10	1	0	111580040A	02727
(23) 8308075 FII	Τ	AA	1K11160.23R		KEMP,MET	10	10	1	0	111580040A	02727
(24)6308076 RI	Ŧ	AA	1K11160.24R		KEMP.MET	10	10	1	0	111580040A	02727
25 6309550	T	AΑ	1K11160.25R		KEMP.MET	10	10	1	0	111600026A	02727
26 6309553	T	AA	1K11160.26R		KEMP.MET	10	10	1	0	111600026A	02727
27 6309554	T	AA	1K11160.27R		KEMP.MET	10	- 10	1	0	111600026A	02727
28 6309555	T	AA	1K11160.28R		KEMP.MET	10	10	1	0	111600026A	02727
29 6310720	T	AA	1K11160.29R		KEMP.MET	10	10	1	0	111600026A	02727
30 6310721	T	AA	1K11160.30R		KEMP.MET	10	10	1	0	111600026A	02727
(31) KEMP31124C	CCAL	ΕP	1K11160.31R		KEMP.MET	1	1	1	Ü	1115999999	
32 6310722	Т	AA	1K11160.32R		KEMP.MET	10	10	1	0	111600026A	02727
33 6310723	T	AA	1K11160.33R		KEMP.MET	10	10	1	0	111600026A	02727
34 6310724	т	AA	1K11160.34R		KEMP.MET	10	10	1	0	111600026A	02727
35 KEMP31124C	CCAL		1K11160.35R		KEMP.MET	1	1	1	0	1115999999	

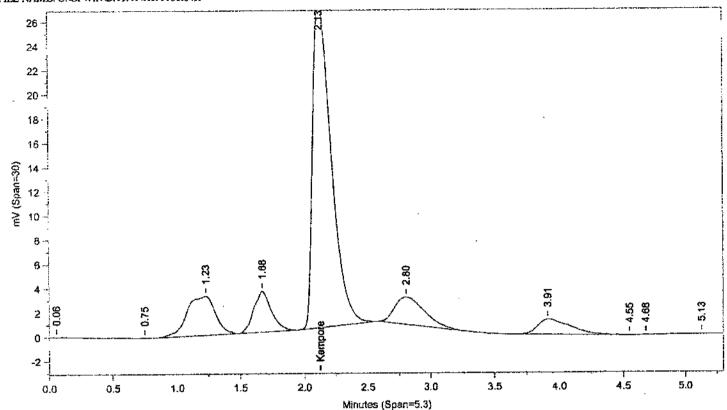
QL878 3856

Set-up by:

_ Date: __*lg/l0/li*____

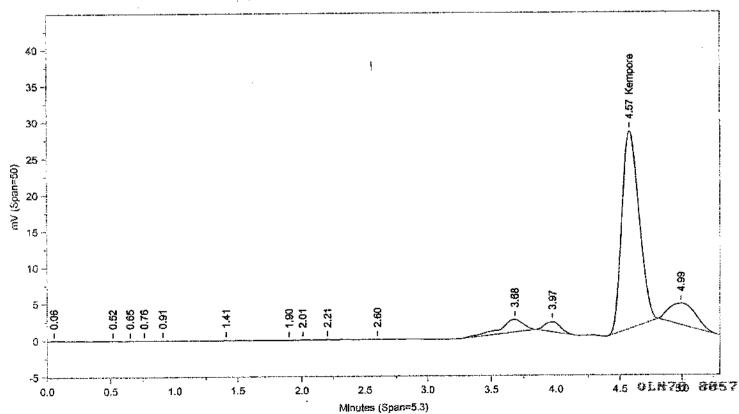
LANCASTER LABORATORIES





Instrument ID: CP09-X3593A Injected On: 6/9/2011 7:04:30 PM

Column ID: Supelcosii PAH, 250mmX4.6mmX5um



Instrument ID: CP09-X3593B Injected On: 6/9/2011 7:04:30 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: I

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject 0 Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Calibration Type: External

Sample Weight: 1 Analyst: 1566

Area Reject: 0

Quantiation: Height

Dilution Factor: 1

RT A Height A

Amount A Compound A

RTB Height B Amount B Compound B

2.127

27003

63905.8 Kempore

4.574

46987.33 Kempore 27220

Files:

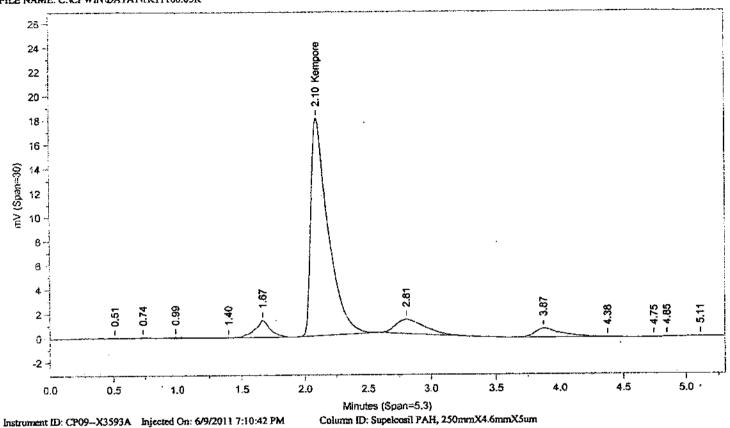
Area File: C:\CPWIN\DATAI\IKI1160.04A Area File: C:\CPWIN\DATA1\IK11160B.04A Method A: C:\CPWIN\DATA1\KEMP.MET Method B: C:\CPWIN\DATA1\KEMPB.MET

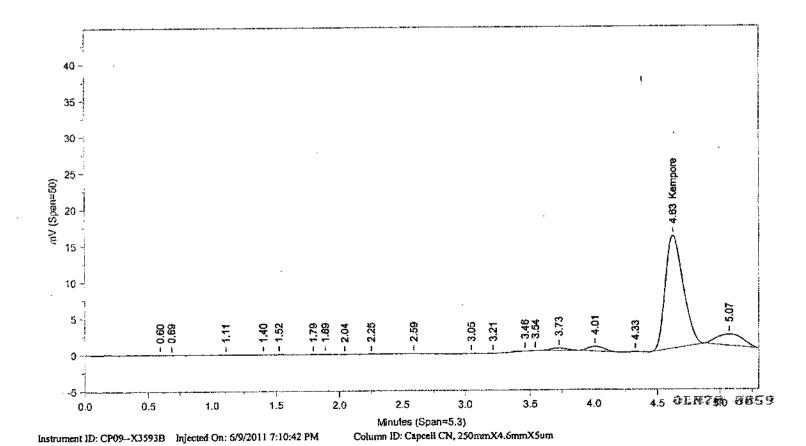
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL Calibration File B: C:\CPWIN\DATA1\IK11160B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATAI\OPEXD.FMTB Area File Created On: 6/9/2011 7:27:52 PM File Reported On: 6/9/2011 at 7:28:04 PM

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1K11160.05R





Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Area Reject: 0 Quantiation: Height

Calibration Type: External Sample Weight: 1

Analyst: 1566

Dilution Factor: 1

RTA Height A

Amount A Compound A

RT B

Height B

Amount B Compound B

2.097

17960

32644.14 Kempore

4.626

15560 25758.51 Kempore

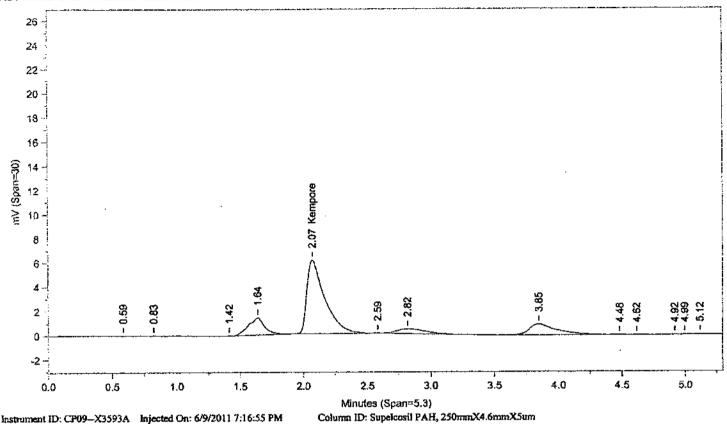
Files:

Area File: C:\CPWIN\DATA1\1K11160.05A Area File: C:\CPWIN\DATA1\1K11160B.05A Method A: C:\CPWIN\DATA1\KEMP.MET Method B: C:\CPWIN\DATAI\KEMPB.MET Calibration File A: C:\CPWIN\DATA1\1K11160.CAL Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL

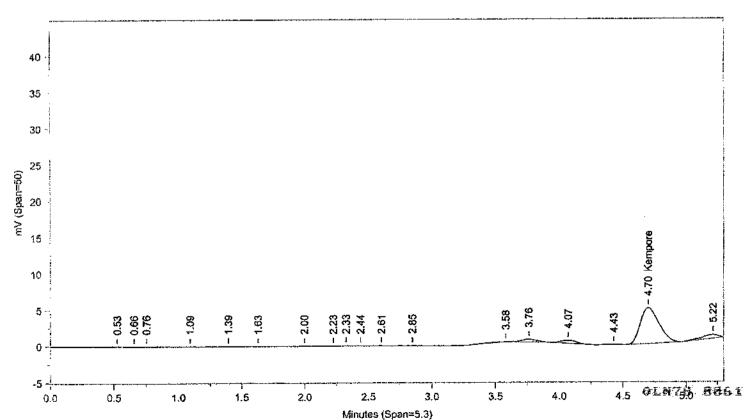
Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATAI\QPEXD.FMTB Area File Created On: 6/9/2011 7:28:16 PM File Reported On: 6/9/2011 at 7:28:27 PM

LANCASTER LABORATORIES





Instrument ID: CP09-X3593A Injected On: 6/9/2011 7:16:55 PM



Instrument ID: CP09-X3593B Injected On: 6/9/2011 7:16:55 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume İnj: I

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitaion: Height

Sample Weight: 1

Analyst: 1566

Dilution Factor: 1

RTA

Height A

Amount A Compound A

RT B

Height B

Amount B Compound B

2.075

6082

10045.97 Kempore

4.697

4963 6463.396 Кетроге

Files:

Area File: C:\CPWIN\DATA1\1K11160.06A

Area File: C:\CPWIN\DATA1\1K11160B.06A

Method A: C:\CPWIN\DATA1\KEMP.MET

Method B: C:\CPWIN\DATA1\KEMPB.MET

Calibration File A: C:\CPWIN\DATA!\IK11160.CAL

Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL

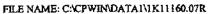
Format A: C:\CPWIN\DATA1\OPEXD.FMTA

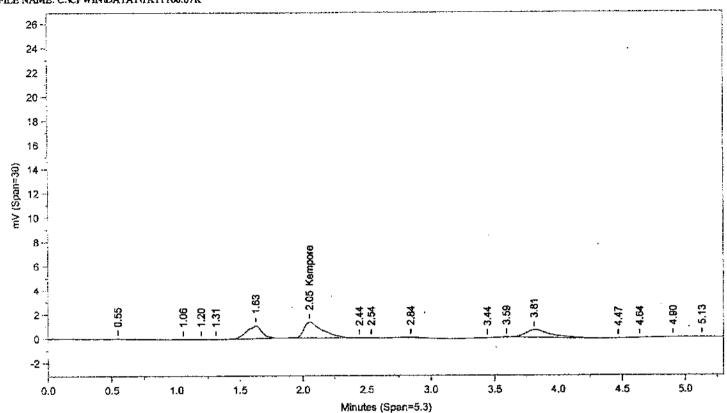
Format B: C:\CPWIN\DATAI\OPEXD.FMTB

Area File Created On: 6/9/2011 7:28:40 PM

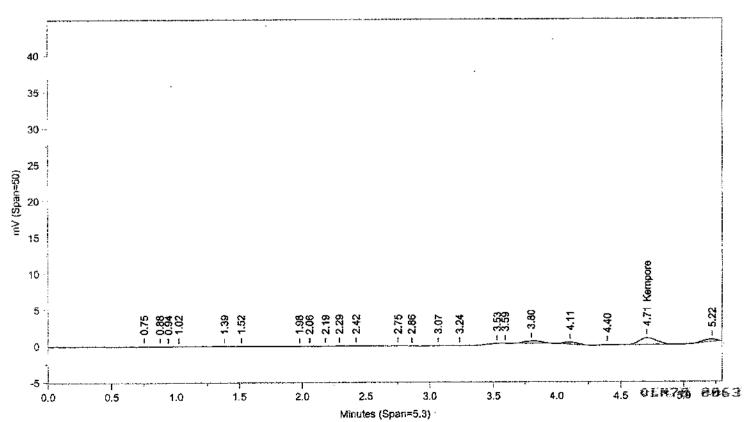
File Reported On: 6/9/2011 at 7:28:49 PM

LANCASTER LABORATORIES





Instrument ID: CP09-X3593A Injected On: 6/9/2011 7:23:07 PM



Instrument ID: CP09-X3593B Injected On: 6/9/2011 7:23:07 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Column ID: Supelcosil PAH, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantiation: Height

Sample Weight: 1

Analyst: 1566

Dilution Factor: 1

RT A Height A

Amount A Compound A

RT B

Height B

Amount B Compound B

2.054

1317 1447.677 Kempore 4.705

-871.494 Kempore

Files:

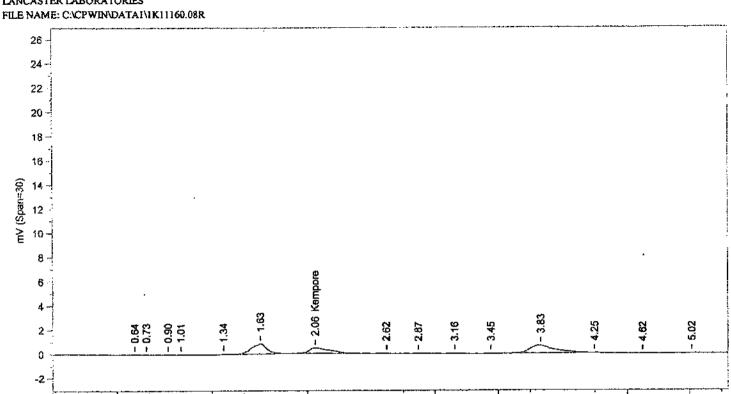
Area File: C:\CPWIN\DATA1\1K11160.07A Area File: C:\CPWIN\DATA1\1K11160B.07A Method A: C:\CPWIN\DATA1\KEMP.MET Method B: C:\CPWIN\DATAI\KEMPB.MET

Calibration File A: C:\CPWIN\DATA1\1K11160.CAL Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL

Format A: C:\CPWIN\DATAI\OPEXD.FMTA Format B: C:\CPWD\\DATA1\OPEXD.FMTB Area File Created On: 6/9/2011 7:29:02 PM File Reported On: 6/9/2011 at 7:29:14 PM

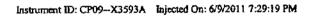
0.0

LANCASTER LABORATORIES



2.5 Minutes (Span=5.3)

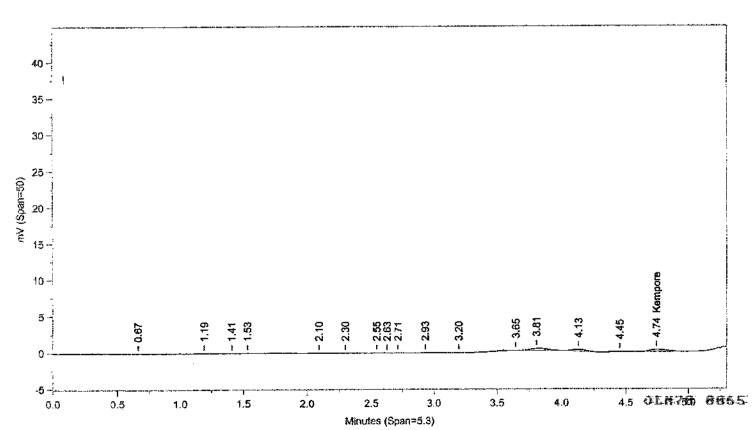
2.0



1.0

1.5

0.5



Instrument ID: CP09--X3593B Injected On: 6/9/2011 7:29:19 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

3.0

Column iD: Supelcosil PAH, 250mmX4.6mmX5um

3.5

4.0

4.5

5.0

Volume inj: 1

Detector A Parameters:

Threshold: 4

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantiation: Height

Sample Weight: 1

Analyst: 1566

Dilution Factor: I

RTA Height A Amount A Compound A

RT B

Amount B Compound B

2.06

465 -276.825 Kempore

4.745

Height B

333 640.206 Kempore

Files:

Area File: C:\CPWIN\DATA\\IK11160.08A

Area File: C:\CPWIN\DATA\\IK11160B.08A

Method A: C:\CPWIN\DATA\\IKEMP.MET

Method B: C:\CPWIN\DATA\\IKEMPB.MET

Calibration File A: C:\CPWIN\DATA\\IK11160.CAL

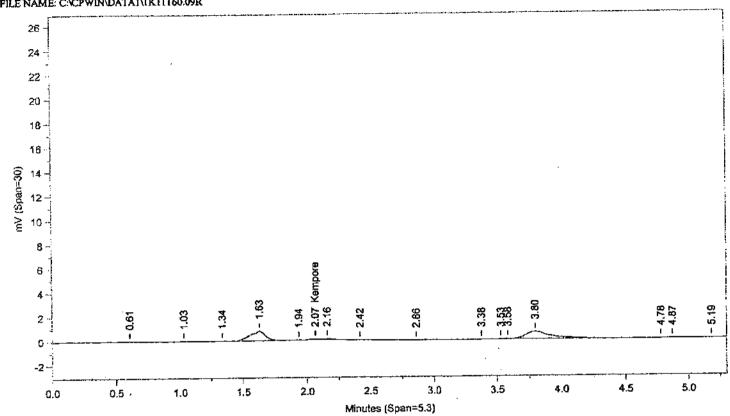
Calibration File B: C:\CPWIN\DATA\\IK11160B.CAL

Format A: C:\CPWIN\DATA\\OPEXD.FMTA

Format B: C:\CPWIN\DATA\\OPEXD.FMTB

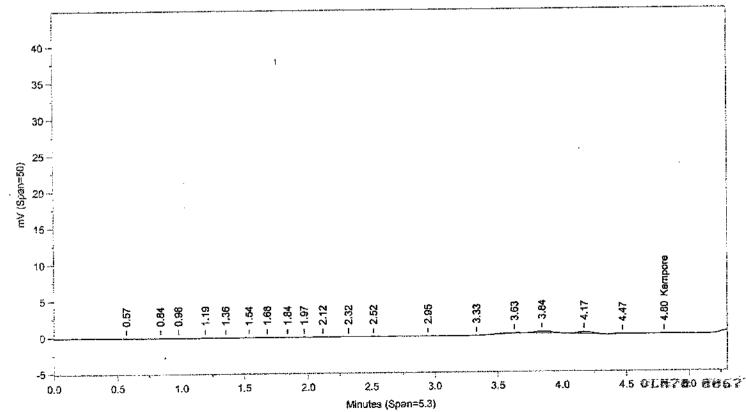
Format B: C:\CPWIN\DATA\OPEXD.FMT
Area File Created On: 6/9/2011 7:34:44 PM
File Reported On: 6/9/2011 at 7:34:55 PM

FILE NAME: C:\CPWIN\DATA1\1K11160.09R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:35:31 PM





Instrument ID: CP09-X3593B Injected On: 6/9/2011 7:35:31 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 0

Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitation: Height

Sample Weight: I

Analyst: 1566

Dilution Factor: 1

RTB

RT A Height A Amount A Compound A

Height B

Amount B Compound B

2.067

34 56.509 Kempore

4.799

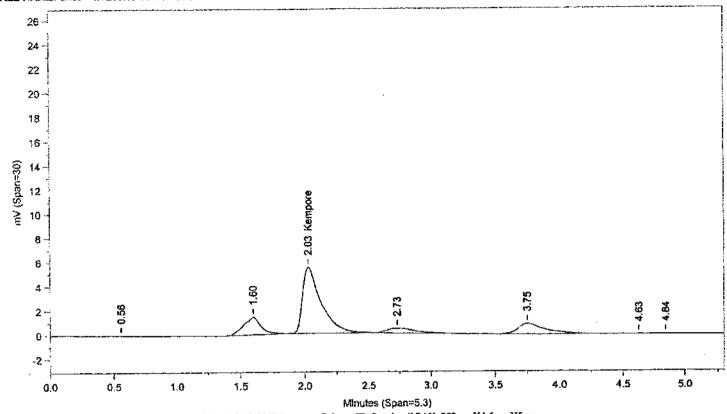
66 332.655 Kempore

Files:

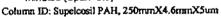
Area File: C:\CPWIN\DATA\\K11160.09A
Area File: C:\CPWIN\DATA\\K11160B.09A
Method A: C:\CPWIN\DATA\\KEMP.MET
Method B: C:\CPWIN\DATA\\KEMPB.MET
Calibration File A: C:\CPWIN\DATA\\KEMPB.CAL
Calibration File B: C:\CPWIN\DATA\\K\11160B.CAL
Format A: C:\CPWIN\DATA\\K\11160B.CAL

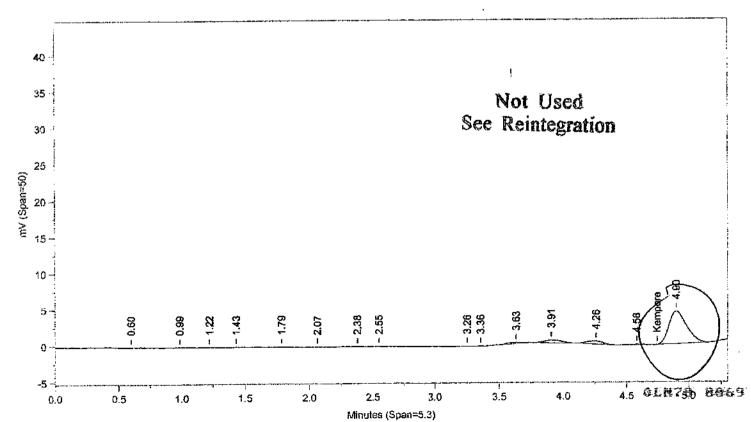
Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/9/2011 8:04:18 PM File Reported On: 6/9/2011 at 8:04:27 PM LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1K11160.20R



Instrument ID: CP09-X3593A Injected On: 6/9/2011 8:43:50 PM





Instrument ID: CP09-X3593B Injected On: 6/9/2011 8:43:50 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 0 Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Area Reject: 0

Calibration Type: External

Calibration Type: External

Quantiation: Height

Sample Weight: 1

Analyst: 1566

Dilution Factor: 1

RT A Height A Amount A Compound A

RT B Height B

Amount B Compound B

2.031

9074.311 Kempore 5458

Kempore

Files:

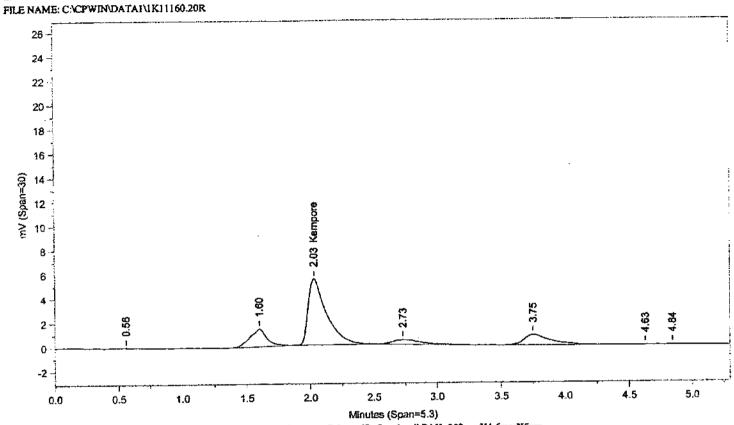
Area File: C:\CPWIN\DATA1\IK11160.20A Area File: C:\CPWIN\DATA1\1K11160B.20A Method A: C:\CPWIN\DATAI\KEMP,MET Method B: C:\CPWIN\DATA1\KEMPB.MET Calibration File A: C:\CPWIN\DATAI\IK11160.CAL

Calibration File B: C:\CPWIN\DATA\\IK11160B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATAI\OPEXD.FMTB . Area File Created On: 6/9/2011 8:49:16 PM File Reported On: 6/9/2011 at 8:49:25 PM

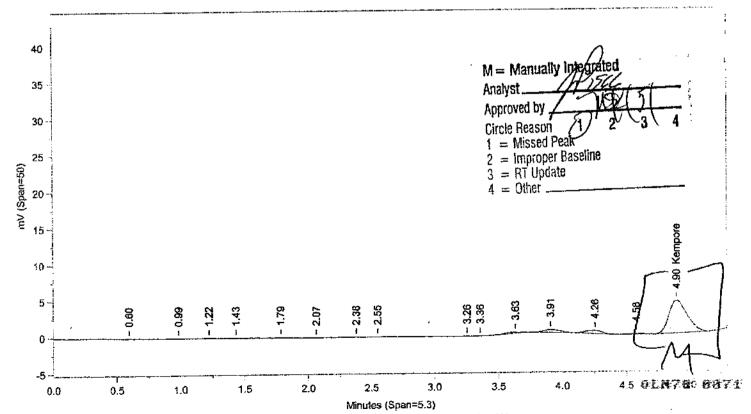
LANCASTER LABORATORIES





Instrument ID: CP09-X3593A Injected On: 6/9/2011 8:43:50 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 8:43:50 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: 4

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantiation: Height

Dilution Factor: 1

Sample Weight: 1 Analyst: 1566

Height A Amount A Compound A RTB

Height B

Amount B Compound B

2.031

9074.311 Kempore 5458

4.901

4490 7827.937 Kempore

Files:

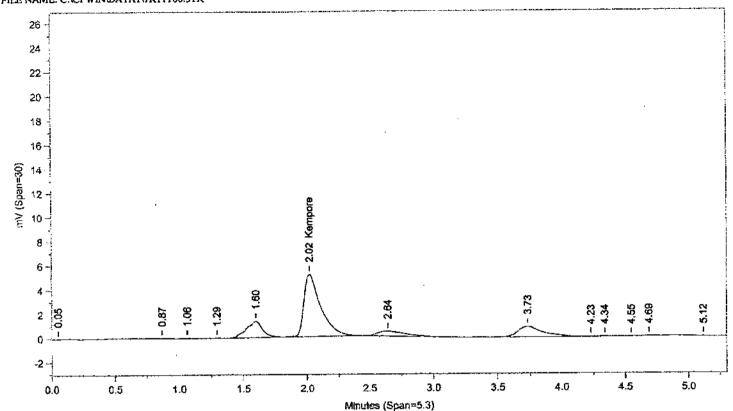
RTA

Area File: C:\CPWIN\-Dualcha.00A Area File: C:\CPWIN\-Dualchb.00A Method A: C:\CPWIN\DATA1\KEMP.MET Method B: C:\CPWIN\DATAI\KEMPB.MET Calibration File A: C:\CPWIN\DATAI\IK11160.CAL Calibration File B: C:\CPWIN\DATA1\IKI1160B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/10/2011 4:40:02 PM File Reported On: 6/10/2011 at 4:40:00 PM

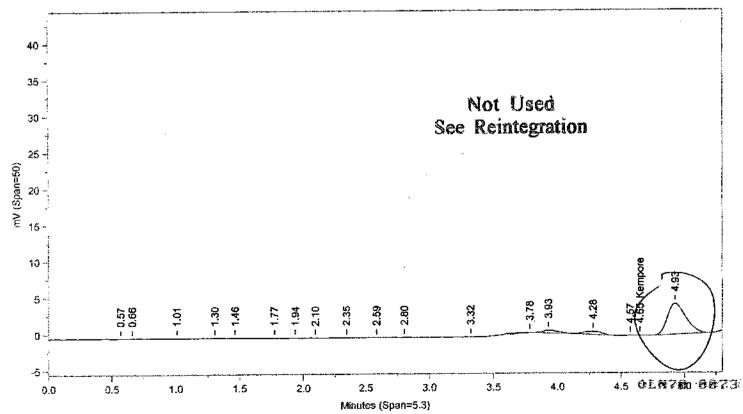
LANCASTER LABORATORIES





Instrument ID: CP09-X3593A Injected On: 6/9/2011 9:52:15 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09-X3593B Injected On: 6/9/2011 9:52:15 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantistion: Height

Sample Weight: 1

Analyst: 1566

Dilution Factor: 1

RTA Height A Amount A Compound A

RTB Height B

Amount B Compound B

2.021

5150 8562.453 Kempore

4.65

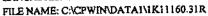
52 309.856 Kempore

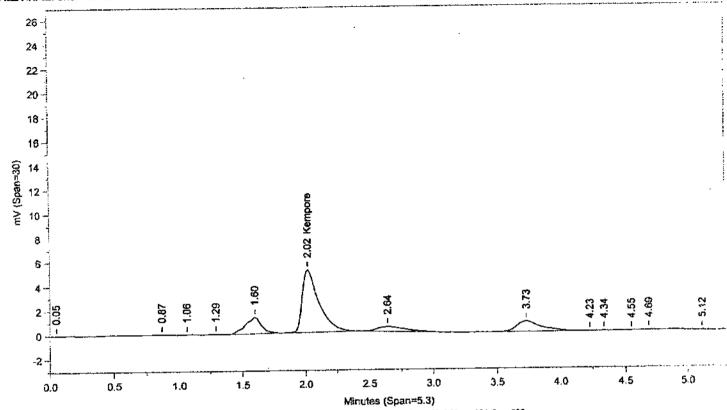
Files:

Area File: C:\CPWIN\DATA\\K1\160.31A
Area File: C:\CPWIN\DATA\\K1\160.31A
Method A: C:\CPWIN\DATA\\KEMP.MET
Method B: C:\CPWIN\DATA\\KEMPB.MET
Calibration File A: C:\CPWIN\DATA\\\K1\160.CAL
Calibration File B: C:\CPWIN\DATA\\\K1\160B.CAL
Format A: C:\CPWIN\DATA\\\OPEXD.FMTA
Format B: C:\CPWIN\DATA\\OPEXD.FMTB
Area File Created On: 6/9/2011 9:57:40 PM

File Reported On: 6/9/2011 at 9:57:48 PM

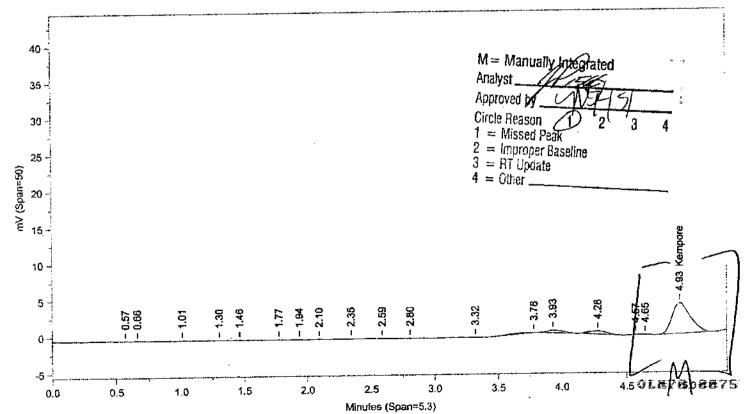
Not Used See Reintegration





Instrument ID: CP09-X3593A Injected On: 6/9/2011 9:52:15 PM





Instrument ID: CP09-X3593B Injected On: 6/9/2011 9:52:15 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: I

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 1

Analyst: 1566

Dilution Factor, 1

RT A Height A

Amount A Compound A

RTB Height B

Amount B Compound B

2.021

5150 8562.453 Kempore

4.928

4227 7381.069 Kempore

Files:

Area File: C:\CPWIN\-Dualcha.00A
Area File: C:\CPWIN\-Dualchb.00A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET

Calibration File A: C:\CPWIN\DATA1\IK11160.CAL Calibration File B: C:\CPWIN\DATA1\IK111608.CAL

Format A: C:\CPWINDATAI\OPEXD.FMTA
Format B: C:\CPWINDATAI\OPEXD.FMTB
Area File Created On: 6/10/2011 4:42:00 PM
File Reported On: 6/10/2011 at 4:41:59 PM

Raw QC Data

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

PBLK40158

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111580040A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) WATER

Lab Sample ID: BLANKA

Sample wt/vol:

10 (g/ml) ml

Lab File ID: 1K11160.10R

% Moisture:

Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 6/7/2011

Concentrated Extract Volume:

10000 (uL)

Date Analyzed: 6/9/2011

Injection Volume:

35 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/l

Q 230U

123-77-3

Kempore

OLN76 8878

Lancaster Laboratories-Single Component Data Summary

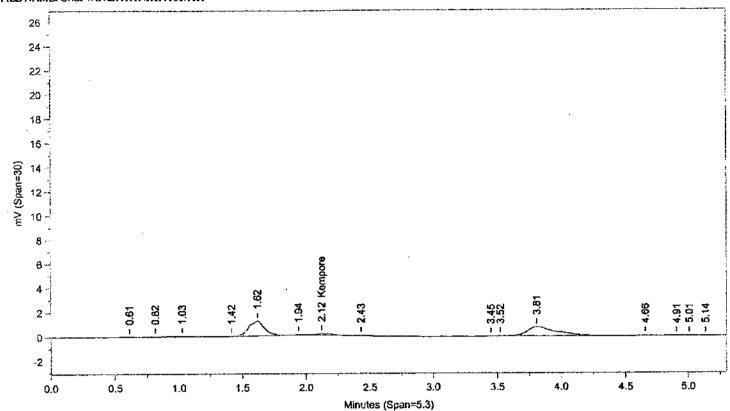
Batchnumber: 111580040A Sample Name: BLANKA 6/7/11 RI PBLK40158Sample ID: AA Total Volume: 10 ml Analyst: 1566 SDG: State: Sample Amount: 10 ml Analyses: 02727 10342 Analysis Report (B) Analysis Report (A) JUN 09, 2011 19:41:44 CP09--X3593A JUN 09, 2011 19:41:44 CP09-X3593B Injected on Injected on Instrument Instrument Result file 1K11160B.10R Result file 1K11160.10R Calibration file Calibration file 1K11160B.CAL : 1K11160.CAL Method file Method file : KEMPB.MET KEMP MET Peak name <u>Min</u> <u>R.T.</u> Max **Height** <u>Amount</u> 108 180.264862 Kempore 1,91 2.12 2.21 **Summary Report** Qualifiers %Difference Comments Amount Found LOQ <u>MDL</u> Compound Name Column <1000 <230 Kempore Units: ug/l Verified by: _ Reviewed by: Date: Date: Valerie Tomayko

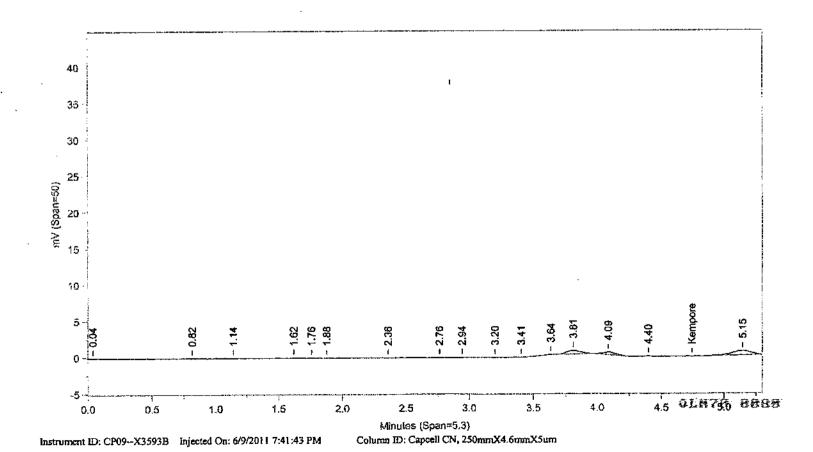
Senior Specialist

Instrument ID: CP09-X3593A Injected On: 6/9/2011 7:41:43 PM

LANCASTER LABORATORIES

FILE NAME: C:\CPWE\\DATA1\1K11160.10R





Column ID: Supelcosil PAH, 250mmX4.6mmX5um

Volume Inj: I

Detector A Parameters:

Threshold: 4

Width: 0.1

Area Reject: 0

Calibration Type: External

Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: Q.1

Area Reject: 0

Calibration Type: External

Quantiation: Height

Sample Weight: 10

Dilution Factor: 10

Analyst: 1566

Height A

Amount A Compound A

RTB

Height B

Amount B Compound B

2.123

108

180.265 Kempore

0

. Kempore

Files:

RT A

Area File: C:\CPWIN\DATA1\1K11160.10A

Area File: C:\CPWIN\DATA1\1K11160B.10A

Method A: C:\CPWIN\DATA1\KEMP.MET

Method B: C:\CPWIN\DATA1\KEMPB.MET

Calibration File A: C:\CPWIN\DATA1\IK11160.CAL

Calibration File B: C:\CPWIN\DATAI\IK11160B.CAL

Format A: C:\CPWIN\DATAI\OPEXD.FMTA

Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/9/2011 8:04:38 PM

File Reported On: 6/9/2011 at 8:04:47 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

LCS40158

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111580040A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) WATER

Lab Sample ID: LCSA

Sample wt/vol:

10 (g/ml) ml

Lab File ID: 1K11160.11R

% Moisture:

Date Received:

Decanted: (Y/N)

Concentrated Extract Volume:

Extraction: (SepF/Cont/Sonc) Direct Injection 10000 (uL) Date Extracted: 6/7/2011

Date Analyzed: 6/9/2011

Injection Volume:

Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 123-77-3 COMPOUND

Kempore

(UG/L or UG/KG) ug/l

Q 8000P

GL#78 8882

Lancaster Laboratories-Single Component Data Summary

Batchnumber: 111580040A LCS40158 Sample ID: AA 6/7/11 RI LCSA Sample Name: SDG: State: ml Analyst: 1566 Total Volume: 10 Sample Amount: 10 ml Analyses: 02727 10342 Analysis Report (B) Analysis Report (A) injected on JUN 09, 2011 19:47:57 JUN 09, 2011 19:47:57 CP09-X3593A Injected on Instrument CP09--X35938 Instrument Result file 1K11160B.11R Result file 1K11160.11R Calibration file 1K11160B.CAL Calibration file : 1K11160.CAL KEMPB.MET Method file Method file : KEMP.MET %SSR(Kempore) %SSR(Kempore) <u>Amount</u> Peak name Min <u>R.T.</u> <u>Max</u> <u>Height</u> <u>Amount</u> <u>R.T.</u> <u>Height</u> <u>Min</u> <u>Max</u> Peak name 4.56 4.90 4685 8157.018066 4.60 2,13 2.21 4798 7977.625977 Kempore Kempore Summary Report %Difference Comments LOQ MDL Qualifiers Amount Found Compound Name <1000 <230 ✓ Kempore Units: ug/l Verified by: _ Reviewed by: 1102 [†] 1 MUL

Date:

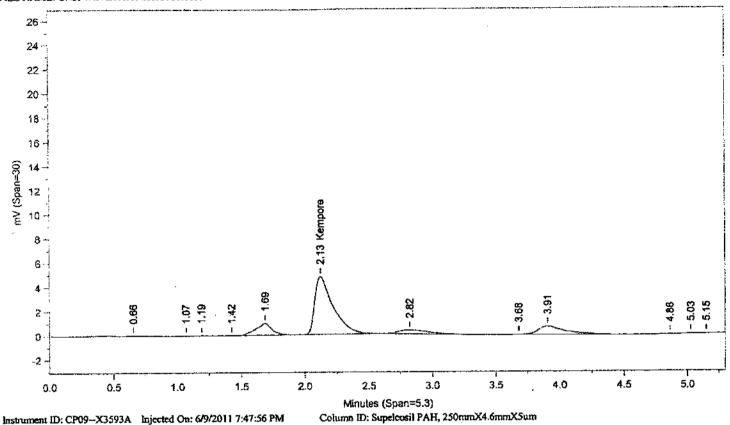
Valerie Tomayko Senior Specialist

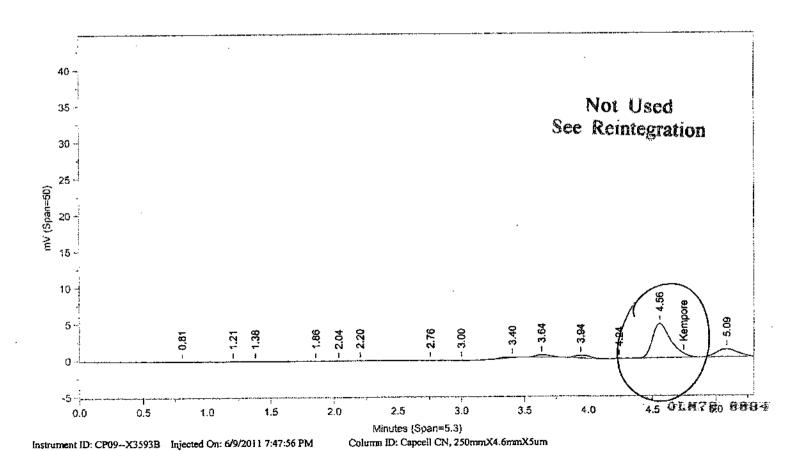
OLN78 8683

Date:

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1K11160.11R





Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 0 Quantitation: Height

Calibration Type: External

Detector B Parameters:

Threshold: -5

Width: 0.1

Area Reject: 0

Calibration Type: External

Quantitaion: Height

Sample Weight: 10

Analyst: 1566

Dilution Factor: 10

RT A Height A

Amount A Compound A

RT B Height B

Amount B Compound B

2.126

4798 7977.626 Kempore

. Kempore

Files:

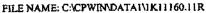
Area File: C:\CPWIN\DATA1\1K11160.11A Area File: C:\CPWIN\DATA1\1K11160B.11A Method A: C:\CPWIN\DATA1\KEMP.MET Method B: C:\CPWIN\DATA1\KEMPB.MET Calibration File A: C:\CPWIN\DATA\\IKi1160.CAL

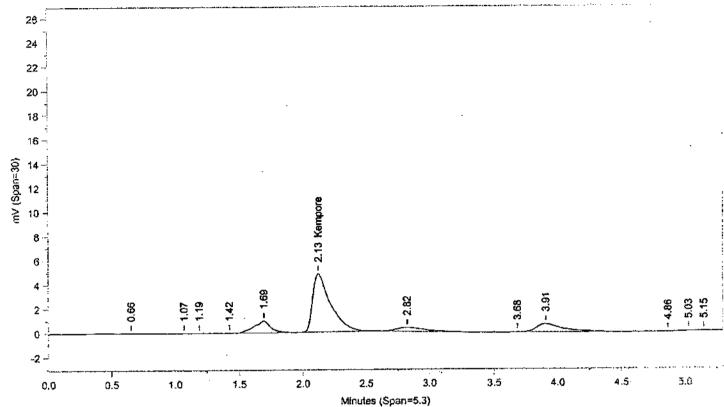
Calibration File B: C:\CPWIN\DATA1\IK11160B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/9/2011 8:04:58 PM File Reported On: 6/9/2011 at 8:05:07 PM

Not Used See Reintegration

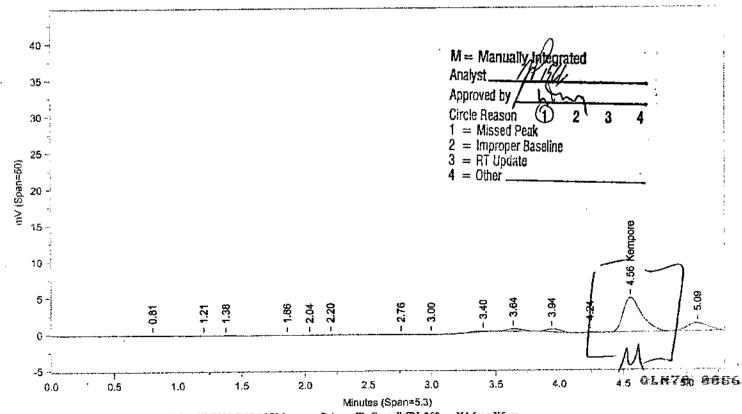






Instrument ID: CP09-X3593A Injected On: 6/9/2011 7:47:56 PM

Column ID: Supelcosii PAH, 250mmX4.6mmX5um



Instrument ID: CP09-X3593B Injected On: 6/9/2011 7:47:56 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 0 Quantitation: Height

Detector B Parameters:

Calibration Type: External

Threshold: -5

Width: 0.1

Amount A Compound A

Area Reject: 0 Quantiation: Height

Dilution Factor: 10

RT B

Calibration Type: External

Sample Weight: 10 Analyst: 1566

Height A

Height B

Amount B Compound B

2.126

7977.626 Kempore 4798

4.558

4685 8157.018 Kempore

Files:

RTA

Area File: C:\CPWIN\-Dualcha.00A Area File: C:\CPWIN\-Dualchb.00A

Method A: C:\CPWIN\DATA1\KEMP.MET

Method B: C:\CPWIN\DATAI\KEMPB.MET

Calibration File A: C:\CPWIN\DATA1\1K11160.CAL Calibration File B: C:\CPWIN\DATAI\IK11160B.CAL

Format A: C:\CPWIN\DATAt\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/10/2011 4:18:28 PM

File Reported On: 6/10/2011 at 4:18:27 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

LCSD40158

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111580040A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) WATER

Sample wt/vol:

Lab Sample ID: LCSDA Lab File ID: 1K11160.12R

10 (g/ml) ml

Date Received:

% Moisture:

Decanted: (Y/N)

Concentrated Extract Volume:

Extraction: (SepF/Cont/Sonc) Direct Injection 10000 (uL) Date Extracted: 6/7/2011 Date Analyzed: 6/9/2011

Injection Volume:

Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 123-77-3 COMPOUND

Kempore

(UG/L or UG/KG) ug/l

Q 8300,P

OLM78 6888

Eancaster Laboratories-Single Component Data Summary

Batchnumber: 111580040A LCSD40158Sample ID: AA Sample Name: LCSDA 6/7/11 RI SDG: State: Analyst: 1566 Total Volume: 10 ml Sample Amount: 10 ml Analyses: 02727 10342 Analysis Report (B) Analysis Report (A) Injected on JUN 09, 2011 19:54:10 JUN 09, 2011 19:54:10 CP09-X3593A Injected on Instrument CP09--X3593B Instrument Result file 1K111609.12R Result file : 1K11160.12R Calibration file 1K11160B.CAL Calibration file : 1K11160.CAL Method file KEMPB.MET Method file : KEMP.MET %SSR(Kempore) %SSR(Kempore) <u>Amount</u> Peak name Max <u>Height</u> <u>Amount</u> <u>Min</u> <u>R.T.</u> Max Peak name <u>Height</u> 4608 8027.290527 4.60 4.74 2.08 4985 8289.089844 Kempore Kempore **Summary Report** LOQ MDL Qualifiers %Difference Comments Amount Found Compound Name <1000 <230 ✓ Kempore Units: ug/l

Verified by:

Date:

Valerie Tornayko Senior Specialist

JUN 1 7 2011

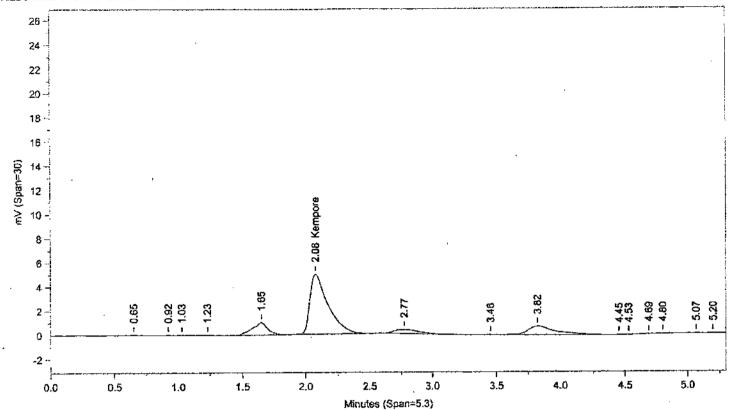
Reviewed by:

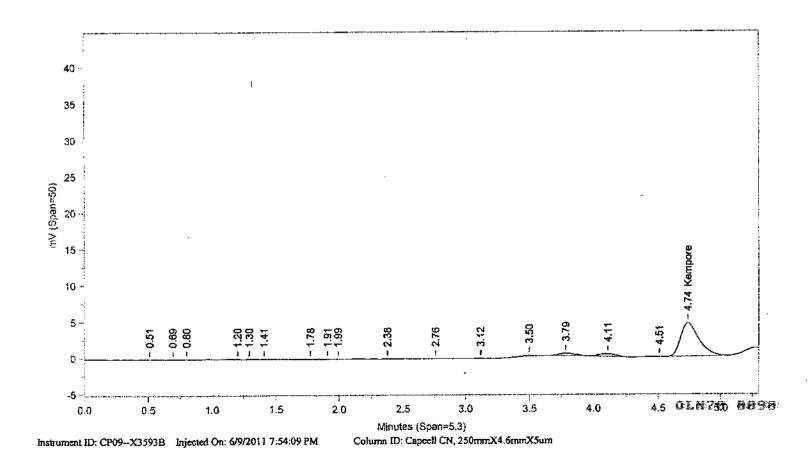
Date:

Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:54:09 PM

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1K11160.12R





Column ID: Supelcosil PAH, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: 4

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitation: Height

Detector B Parameters:

Threshold: -5

Width: 0.1

Calibration Type: External

Area Reject: 0 Quantitaion: Height

Sample Weight: 10

Analyst: 1566

Dilution Factor: 10

Height A Amount A Compound A

RTB Height B

Amount B Compound B

2.08

4985

8289.09 Kempore

4.738

4608 8027.291 Kempore

Files:

RTA

Area File: C:\CPWIMDATA1\IK11160.12A

Area File: C:\CPWINDATA1\1K11160B.12A

Method A: C:\CPWIN\DATA1\KEMP.MET

Method B: C:\CPWIN\DATAI\KEMPB.MET

Calibration File A: C:\CPWIN\DATA1\IKI1160.CAL

Calibration File B: C:\CPWIN\DATA1\IK11160B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA

Format B: C:\CPWIN\DATAI\OPEXD.FMTB

Area File Created On: 6/9/2011 8:05:22 PM

File Reported On: 6/9/2011 at 8:05:31 PM

Extraction/Distillation/Digestion Logs

111580040A

Organic Extraction Batchiog Assigned to: 1566 James Place

Start time: Liller

Reviewed by: Not Date: Tech 2: Tech 1: ____

		1					V				
Dept: 24 P	Prep Analysis: 00000	00000					Kempore in Water	ore in	Water		
ဗွ	Sample Code	Amt (#.t)	SS/IS Sol. (mL.)	Amt (mL)	MS Sol.	Amt FV (mL.) (mL) pH pH	FV (mL)	pH	표	BC	Comments
6308056MS	ISC1-	ଠ			STIILUS24A	1.0	12		7		Xellouish
6308057MSD	ISC1-	5			7	70	10		abla		+
BLANKA	PBLK40158	5					₫				
LCSA	LCS40158	10			54111432414	Ç	의	\		$\overline{}$	*
LCSDA	LCSD40158	10			-1	9,	9			1	
1000									l		

STILLBOUGH - Kempore Stock

					2	r	۲	-			2,00	Prio
Sample #	Sample	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	SS/IS Sol.	į (_	돔	涺	ပ္က	Comments	Analyses	Due Date	:
1 6308055BKG	SC1-	2			Š	1	ŀ	, Ve	Vel lawish	02727	06/17/2011	۵
2 6308058	ISC1D	3		V	5	T	abla			02727	06/17/2011	<u>a</u>
3 6308059	ISC2-	\$ 5		K	\c	T	ţ	<u> </u>		02727	06/17/2011	<u>α</u>
4 6308074	PZ16R	2/2			2		T	V	7.7.	02727	06/17/2011	Ь
5 6308075	PZ17R	2 2			ψ.	下	十	5		02727	06/17/2011	Ь
B 6308076	SD-3	≱¢			35	#	1			02727	06/17/2011	Д
200000		^			1	1	1					

OLN.

7					
Rack ID: 6		Work Station		S-bath ID	C S-bath ID
Internal Standard		Balance #		Documented t	Documented temps are NIST corrected.
DF = Dilution Factor FV = Final Volume	FV = Final Volu	ще	Page 1 of 1		

C M-vap

111580040A

Opex Data

Case Narrative Conformance/Nonconformance Summary



CLIENT: Olin Corporation

SDG: OLN70

Pesticide Residue Analysis

Fraction: Opex

Opex in Water

Matrix

Sample #	Client ID	Liquid Solid	Comments
6308074	OC-SW-PZ-16RR-XXX	$\overline{\mathbf{x}}$	
6308075	OC-SW-PZ-17RR-XXX	X	
6308076	OC-SW-SD-1-XXX	X	

See QC Reference List for Associated Batch QC Samples

SAMPLE PREPARATION:

No problems were encountered with the preparation of the samples.

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

(Sample number(s): 6308075-6308076: Analysis: 02726)

The sample was injected numerous times. Each time the response for opex in the calibration check standard injected after the sample was outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Site specific matrix QC samples were not submitted for this SDG. The batch matrix QC was performed on samples from another project. Therefore the matrix effects would not be relevant and matrix QC is not provided in the data package. Laboratory spike data (LCS) are provided.

All QC is within specification.

DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Abbreviation Kev

Abbi criation key		
UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation	
MS = Matrix Spike	MDL = Method Detection Limit	
MSD = Matrix Spike Duplicate	ND = Not Detected	
BKG = Background (for Duplicate)	J = Estimated Value	
D = Duplicate (DUP)	E= out of calibration range	
LCS = Lab Control Sample		
LCSD = Lab Control Sample Duplicate	* = Out of Specification	₫

FLH78 8836



Pesticide Residue Analysis

Fraction: Opex

CLIENT: Olin Corporation SDG: OLN70

Narrative Reviewed and Approved 6/24/2011 by M. Susan Kreicht M. SUSAN KREILER SENIOR SPECIALIST

Quality Control and Calibration Summary Forms



Quality Control Reference List Pesticide Residue Analysis

CLIENT: Olin Corporation

SDG: OLN70

Fraction: Opex

Analysis Opex in Water Batch Number

Sample NumberAnalysis DatePBLK2216106/10/2011 21:09:00LCS2216106/10/2011 21:16:00LCSD2216106/10/2011 21:23:00630807406/10/2011 22:04:00630807506/10/2011 22:18:00630807606/10/2011 22:24:00



Fraction: Opex

Quality Control Summary Method Blank Pesticide Residue Analysis SDG: OLN70 Matrix: LIQUID

111610022 / PBLK22161 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Opex in Water	06/10/11	N.D.	ug/l	20	100



Quality Control Summary Laboratory Control Standard (LCS) Laboratory Control Standard Duplicate(LCSD)

SDG: OLN70 Matrix: LIQUID

Pesticide Residue Analysis

Fraction: Opex

LCS: LCS22161	Batch: 111610	022A (Sample n	umber(s): 63080	74-63080	76)		·	
LCSD: LCSD22161	Spike	LCS	LCSD					
	Added	Conc	Conc	LCS	LCSD	%Rec		%RPD
Analyte	ug/l	ug/l	ug/l	%Rec	%Rec	Limits	%RPD	Limits
Opex in Water	740	690	690	93	93	70-130	0	30

6D **INITIAL CALIBRATION - RETENTION TIME SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593A

GC Column (1): SUP-PAH

ID: 4.6 (mm)

Update File:

Calibration File: 1X11161

Date(s) Analyzed: 6/10/2011

6/10/2011

		AT O	F STANDA	RDS	7	WIDPOUT	HTWI	NDOW
COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3		LEVEL 5	RT RT	FROM	то
Opex	2.12	2.11			2.13	2.12	2.02	2.22

6E **INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593A

Calibration File: 1X11161

GC Column (1): SUP-PAH

ID: 4.6 (mm)

Date(s) Analyzed: 6/10/2011

6/10/2011

			CALIBRAT	ION FACTO	RS			
COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	%RSD	
Opex	6.71E+00						19.4	-Linear
						W DOD.	40.4	

Average % RSD:

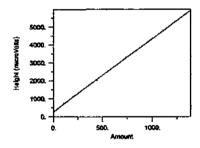
Calibration File Name: C:\CPWIN\DATA1\1X11161.CAL Version = 19

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units =
1 components with 5 levels each

1 Opex

Retention time = 2.120 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	111.000	744.5	6.706909	1X11161.08A	6/14/2011 6:47:5
2	222.000	1178.8	5.309752	1X11161.07A	6/14/2011 6:47:3
3	444.000	2039.2	4.592723	1X11161.06A	6/14/2011 6:47:0
4	740.000	3302.1	4.462337	1X11161.05A	6/14/2011 6:46:4
5	1110.000	4793.2	4.318211	1X11161.04A	6/14/2011 6:46:1



Calibration formula: Y = 4.07 X + 273.425
Fit type = Linear with equal weighting
Coefficient of determination = 0.9998, Average error = 1.08%
Average CF = 5.0780 with RSD = 19.44%

GLH78 8184

6D **INITIAL CALIBRATION - RETENTION TIME SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593B

Calibration File: 1X11161B

GC Column (2): CAPCELL-CN

Update File: ID: 4.6 (mm)

Date(s) Analyzed: 6/10/2011 6/10/2011

		RT O	FSTANDA	RDS		MIDPOINT	RT WII	WDOW
COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3		LEVEL 5	HT T	FROM	TO
Opex	5.31	5.34	5.33			5.31		

6E **INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593B

Calibration File: 1X11161B

GC Column (2): CAPCELL-CN ID: 4.6 (mm)

Date(s) Analyzed: 6/10/2011 6/10/2011

COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	%RSD	
Орех	3.41E+00	:						-Linear
					Ανοιασο	% RSD:	22.5	

Jf1561 4/14/11

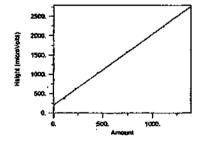
Calibration File Name: C:\CPWIN\DATA1\1X11161B.CAL Version = 21

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units =
1 components with 5 levels each

1 Opex

Retention time = 5.311 min., Search window = 0.100 min. Low alarm amount = 0, High alarm amount = 0 Group number = 0, Component constant = 0 No retention time reference component Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	111.000	378.0	3,405406	Manual	6/14/2011 6:52:1
2	222.000	619.5	2.790514	1X11161B.07A	6/14/2011 6:47:4
3	444.000	1034.2	2.329351	1X11161B.06A	6/14/2011 6:47:2
4	740.000	1576.4	2.130264	1X11161B.05A	6/14/2011 6:46:5
5	1110.000	2232.3	2.011071	1X11161B.04A	6/14/2011 6:46:3



Calibration formula: Y = 1.845 X + 198.64

Fit type = Linear with equal weighting

Coefficient of determination = 0.9994, Average error = 2.24%

Average CF = 2.5333 with RSD = 22.53%

6D **INITIAL CALIBRATION - RETENTION TIME SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

instrument: K3593A

Calibration File: 1X11166

GC Column (1): SUP-PAH

ID: 4.6 (mm)

Update File:

Date(s) Analyzed: 6/15/2011 6/15/2011

	RIUFSIANDARDS ####					MIDPOINT	HAM WITH MADON		
COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	Cevel 1	FROM	то	
Орех	2.24	2.24	2.23	2.23	2.22		2.14	2.34	

01878 6168

6E INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

SAS No.:

Case No.:

Calibration File: 1X11166

SDG No.:

Instrument: K3593A

GC Column (1): SUP-PAH

ID: 4.6 (mm)

Date(s) Analyzed: 6/15/2011

	<u> </u>						
COMPOUND	LEVEL 1		 LEVEL 4	LEVEL 5	MEAN	%RSD	_
Opex	5.09E+00			3.26E+00	3.73E+00	20.7	-Linear
				Average	% RSD:	20.7	

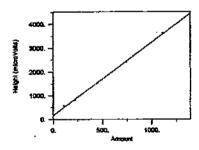
Calibration File Name: C:\CPWIN\DATA1\1X11166.CAL Version = 8

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units =
1 components with 5 levels each

1 Opex

Retention time = 2.243 min., Search window = 0.100 min. Low alarm amount = 0, High alarm amount = 0 Group number = 0, Component constant = 0 No retention time reference component Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
4	111.000	565.0	5,089663	1X11166.08A	6/16/2011 8:53:0
2	222.000	808.1	3.640278	1X11166.07A	6/16/2011 8:52:4
3	444.000	1515.3	3.412851	1X11166.06A	6/16/2011 8:52:1
4	740.000	2417.8	3.267278	1X11166.05A	6/16/2011 8:51:5
5	1110.000	3621.6	3,262698	1X11166.04A	6/16/2011 8:51:2



Calibration formula: Y = 3.089 X + 162.466
Fit type = Linear with equal weighting
Coefficient of determination = 0.9988, Average error = 3.97%
Average CF = 3.7346 with RSD = 20.70%

OLHTO Gile

6D

INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593B

Calibration File: 1X11166B

GC Column (2): CAPCELL-CN ID: 4.6 (mm)

Update File:

Date(s) Analyzed: 6/15/2011 6/15/2011

	RT OF STANDARDS					MIDPOINT	RT WI	1DOW
COMPOUND	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	leigh I	FROM	то
Орех	5.10	5.08					5.00	5.20

0LM78 0111

6E **INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY**

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593B

Calibration File: 1X11166B

GC Column (2): CAPCELL-CN ID: 4.6 (mm)

Date(s) Analyzed: 6/15/2011 6/15/2011

COMPOUND	LEVEL 1	LEVEL 2	 	LEVEL 5	MEAN	%RSD	
Орех	4,34E+00	3.29E+00			3.12E+00	23.8	-Linear
<u> </u>				Augraga	ov DCD.	22 9	

Average % RSD: 23.8

Calibration File Name: C:\CPWIN\DATA1\1X11166B.CAL Version = 9

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units =
1 components with 5 levels each

1 Opex

Retention time = 5.102 min., Search window = 0.100 min.

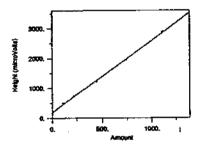
Low alarm amount = 0, High alarm amount = 0

Group number = 0, Component constant = 0

No retention time reference component

Single peak quantification by height

Level	Amount	Height	Helght/Amt	Source	Date and time
1	111.000	482.1	4.343294	1X11166B.08A	6/16/2011 8:53:2
2	222.000	729.6	3.286291	1X11166B.07A	6/16/2011 8:52:5
3	444.000	1214.9	2.736173	1X11166B.06A	6/16/2011 8:52:3
4	740.000	1937.5	2.618241	1X11166B.05A	6/16/2011 8:52:0
5	1110.000	2879.2	2.593915	1X11166B.04A	6/16/2011 8:51:4



Calibration formula: Y = 2.399 X + 188.287
Fit type = Linear with equal weighting
Coefficient of determination = 0.9990, Average error = 2.53%
Average CF = 3.1156 with RSD = 23.80%

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593A

Init. Calib Date(s): 06/10/11

06/10/11

GC Column (1): SUP-PAH

ID: 4.6 (mm)

Date Analyzed: 06/10/11

Lab File ID: 1X11161.19R

Time Analyzed: 22:11

Lab Standard ID: OPEX3DW

Initial Calibration: 1X11161

COMPOUND	RT	RT WIND FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	2.18	2.02	2.22	388.85	444.00	-12.4

Average of %D:

Lab Name: Lancaster Laboratorles

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593B

ID: 4.6 (mm)

Init. Calib Date(s): 06/10/11 Date Analyzed: 06/10/11

06/10/11

GC Column (2): CAPCELL-CN

Time Analyzed: 22:11

Lab File ID: 1X11161B.19R Lab Standard ID: OPEX3DW

Initial Calibration: 1X11161B

COMPOUND	RT	RT WIN	TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	5.10	5.21	5.41	435.98	444.00	-1.8

Average of %D:

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593A

Init. Calib Date(s): 06/10/11

06/10/11

GC Column (1): SUP-PAH

ID: 4.6 (mm)

Date Analyzed: 06/10/11

Lab File ID: 1X11161.30R

Time Analyzed: 23:26

Lab Standard ID: OPEX3DX

Initial Calibration: 1X11161

COMPOUND	RT	RT WINE FROM	TO OT	CALC AMOUNT	NOM - AMOUNT	%D
Opex	2.18	2.02	2.22	300.56	444.00	-32.3

Average of %D: 32.3

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593B

GC Column (2): CAPCELL-CN ID: 4.6 (mm)

Date Analyzed: 06/10/11

Init. Calib Date(s): 06/10/11

06/10/11

Lab File ID: 1X11161B.30R

Time Analyzed: 23:26

Lab Standard ID: OPEX3DX

Initial Calibration: 1X11161B

COMPOUND	RT	RT WIN FROM	DOW TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	5.07	5.21	5.41	351.56	444.00	-20.8

Average of %D:

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593A

Init. Calib Date(s): 06/15/11

06/15/11

GC Column (1): SUP-PAH

ID: 4.6 (mm)

Date Analyzed: 06/15/11.

Lab File ID: 1X11166.20R

Time Analyzed: 21:22

Lab Standard ID: OPEX3DZ

Initial Calibration: 1X11166

COMPOUND	RT	RT WINE	TO TO	CALC AMOUNT	MOM AMOUNT	%D
Opex	2.19	2.14	2.34	431.18	444.00	-2.9

Average of %D:

Lab Name: Lancaster Laboratories

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.:

Instrument: K3593B

Init. Calib Date(s): 06/15/11

06/15/11

GC Column (2): CAPCELL-CN

ID: 4.6 (mm)

Date Analyzed: 06/15/11

Lab File ID: 1X11166B.20R

Time Analyzed: 21:22

Lab Standard ID: OPEX3DZ

Initial Calibration: 1X11166B

COMPOUND	RT	RT WIND	YOO TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	5.17	5.00	5.20	377.31	444.00	-15.0

Average of %D:

15.0

Sequence: 1X11161

Lab Name: Lancaster laboratories

Contract:

Lab Code:

Case No.:

SAS No:

SDG No.:

 $\hbox{GC Column:}\ \underline{SUP\text{-}PAH}$

ID: 4.6

Instrument: K3593A

	Sample	Lab	Date	Time	Calibration
	Code No.	Sample ID	Analyzed	Analyzed	File
001		CONDITIONER	06/10/2011	20:07:47	1X11161
002		CONDITIONER	06/10/2011	20:14:38	1X11161
003		CONDITIONER	06/10/2011	20:21:30	1X11161
004	OPEX5AA	OPEX51124C	06/10/2011	20:28:21	1X11161
005	OPEX4AA	OPEX41124C	06/10/2011	20:35:12	1X11161
006	OPEX3AA	OPEX31124C	06/10/2011	20:42:03	1X11161
007	OPEX2AA	OPEX21124C	06/10/2011	20:48:55	1X11161
800	OPEX1AA	OPEX11124C	06/10/2011	20:55:46	1X11161
009	MDOXXAA	MDOXX1124C	06/10/2011	21:02:38	1X11161
010	PBLK22161	BLANKA	06/10/2011	21:09:29	1X11161
011	LCS22161	LCSA	06/10/2011	21:16:20	1 X 11161
012	LCSD22161	LCSDA	06/10/2011	21:23:12	1X11161
013	ISC1-	6308055	06/10/2011	21:30:04	1X11161
014	ISC1-	6308056	06/10/2011	21:36:55	1X11161
015	ISC1-	6308057	06/10/2011	21:43:47	1X11161
016	ISCID	6308058	06/10/2011	21:50:39	1X11161
017	ISC2-	6308059	06/10/2011	21:57:31	1X11161
018	PZ16R	6308074	06/10/2011	22:04:22	IX11161
019	OPEX3DW	OPEX31124C	06/10/2011	22:11:14	1X11161
020	PZ17R	6308075	06/10/2011	22:18:05	1X11161
021	-SD-1	6308076	06/10/2011	22:24:57	1X11161
022	5-XXX	6309550	06/10/2011	22:31:49	IX11161
023	I-XXX	6309553	06/10/2011	22:38:41	IX11161
024	2-XXX	6309554	06/10/2011	22:45:34	1X11161
025	S-XXX	6309555	06/10/2011	22:52:26	1X11161
026	EDSD0	6310720	06/10/2011	22:59:18	1XI1161
027	EDSD1	6310721	06/10/2011	23:06:10	1X11161
028	EDSD2	6310722	06/10/2011	23:13:03	1X11161
029	EDSD5	6310723	06/10/2011	23:19:55	1X11161
030	OPEX3DX	OPEX31124C	06/10/2011	23:26:47	1X11161
031	MMB-2	6310724	06/10/2011	23:33:39	1X11161
032	OPEX3DY	OPEX31124C	06/10/2011	23:40:32	IXI1161

Sequence: 1X11161B

Lab Name: Lancaster laboratories

Contract:

Lab Code:

Case No.:

SAS No:

SDG No.:

GC Column: CAPCELL-CN

ID: 4.6

Instrument: K3593B

COOR NO. Sample ID Malayzed Arialyzed Malayzed Malayze		Sample	Lab Comple ID	Date	Time	Calibration File
OO2 CONDITIONER 06/10/2011 20:14:38 IX11161B 003 CONDITIONER 06/10/2011 20:21:30 IX11161B 004 OPEX5AA OPEX51124C 06/10/2011 20:28:21 IX11161B 005 OPEX4AA OPEX51124C 06/10/2011 20:35:12 IX11161B 006 OPEX3AA OPEX31124C 06/10/2011 20:42:03 IX11161B 007 OPEX2AA OPEX21124C 06/10/2011 20:48:55 IX11161B 008 OPEX1AA OPEX11124C 06/10/2011 20:55:46 IX11161B 009 MDOXXAA OPEX1124C 06/10/2011 21:02:38 IX11161B 010 PBLK22161 BLANKA 06/10/2011 21:02:38 IX11161B 011 LCSD22161 LCSDA 06/10/2011 21:16:20 IX11161B 012 LCSD22161 LCSDA 06/10/2011 21:33:12 IX11161B 013 ISC1- 6308055 06/10/2011 21:33:47 IX11161B 014		Code No.	Sample ID	Analyzed	Analyzed	
003 CONDITIONER 06/10/2011 20:21:30 IX11161B 004 OPEX5AA OPEX51124C 06/10/2011 20:28:21 1X11161B 005 OPEX4AA OPEX51124C 06/10/2011 20:35:12 1X11161B 006 OPEX3AA OPEX31124C 06/10/2011 20:42:03 1X11161B 007 OPEX2AA OPEX21124C 06/10/2011 20:48:55 1X11161B 008 OPEX1AA OPEX11124C 06/10/2011 20:55:46 1X11161B 009 MDOXXAA MDOXX1124C 06/10/2011 21:02:38 1X11161B 010 PBLK22161 BLANKA 06/10/2011 21:09:29 1X11161B 011 LCSD2161 LCSA 06/10/2011 21:09:29 1X11161B 011 LCSD22161 LCSA 06/10/2011 21:10:20 1X11161B 012 LCSD22161 LCSA 06/10/2011 21:30:04 1X11161B 013 ISC1- 6308055 06/10/2011 21:30:04 1X11161B						
004 OPEX5AA OPEX51124C 06/10/2011 20:28:21 1X11161B 005 OPEX4AA OPEX41124C 06/10/2011 20:35:12 1X11161B 006 OPEX3AA OPEX31124C 06/10/2011 20:42:03 1X11161B 007 OPEX2AA OPEX21124C 06/10/2011 20:48:55 1X11161B 008 OPEX1AA OPEX11124C 06/10/2011 20:55:46 1X11161B 009 MDOXXAA MDOXX1124C 06/10/2011 21:02:38 1X11161B 010 PBLK22161 BLANKA 06/10/2011 21:09:29 1X11161B 011 LCSD2161 LCSA 06/10/2011 21:09:29 1X11161B 012 LCSD22161 LCSA 06/10/2011 21:09:29 1X11161B 011 LCSD22161 LCSA 06/10/2011 21:30:04 1X11161B 012 LCSD22161 LCSA 06/10/2011 21:30:04 1X11161B 013 ISC1- 6308055 06/10/2011 21:30:04 1X11161B			CONDITIONER	06/10/2011	20:14:38	
ODS OPEX4AA OPEX41124C 06/10/2011 20:35:12 IX11161B OOG OPEX3AA OPEX31124C 06/10/2011 20:42:03 IX11161B OOF OPEX2AA OPEX21124C 06/10/2011 20:48:55 IX11161B OOB OPEX1AA OPEX11124C 06/10/2011 20:55:46 IX11161B OOB MDOXXAA MDOXX1124C 06/10/2011 21:02:38 IX11161B O10 PBLK22161 BLANKA 06/10/2011 21:09:29 IX11161B 011 LCS22161 LCSA 06/10/2011 21:30:29 IX11161B 012 LCSD2161 LCSA 06/10/2011 21:30:29 IX11161B 013 ISC1- 6308055 06/10/2011 21:30:04 IX11161B 014 ISC1- 6308056 06/10/2011 21:36:55 IX11161B 015 ISC1- 6308057 06/10/2011 21:43:47 IX11161B 016 ISC1D 6308058 06/10/2011 21:50:39 IX11161B						
O06 OPEX3AA OPEX31124C 06/10/2011 20:42:03 1X11161B O07 OPEX2AA OPEX21124C 06/10/2011 20:48:55 1X11161B O08 OPEX1AA OPEX21124C 06/10/2011 20:55:46 1X11161B 009 MDOXXAA MDOXX1124C 06/10/2011 21:02:38 1X11161B 010 PBLK22161 BLANKA 06/10/2011 21:09:29 1X11161B 011 LCS22161 LCSA 06/10/2011 21:16:20 1X11161B 012 LCSD22161 LCSDA 06/10/2011 21:30:04 1X11161B 013 ISC1- 6308055 06/10/2011 21:30:04 1X11161B 013 ISC1- 6308056 06/10/2011 21:36:55 1X11161B 014 ISC1- 6308057 06/10/2011 21:33:47 1X11161B 015 ISC1- 6308058 06/10/2011 21:50:39 1X11161B 016 ISC2- 6308059 06/10/2011 21:57:31 1X11161B	004	OPEX5AA			20:28:21	
007 OPEX2AA OPEX21124C 06/10/2011 20:48:55 1X11161B 008 OPEX1AA OPEX11124C 06/10/2011 20:55:46 1X11161B 009 MDOXXAA MDOXX1124C 06/10/2011 21:02:38 1X11161B 010 PBLK22161 BLANKA 06/10/2011 21:09:29 1X11161B 011 LCS22161 LCSA 06/10/2011 21:09:29 1X11161B 012 LCSD22161 LCSA 06/10/2011 21:30:04 1X11161B 012 LCSD22161 LCSDA 06/10/2011 21:30:04 1X11161B 013 ISC1- 6308055 06/10/2011 21:30:04 1X11161B 013 ISC1- 6308056 06/10/2011 21:36:55 1X11161B 014 ISC1- 6308057 06/10/2011 21:43:47 1X11161B 015 ISC1- 6308058 06/10/2011 21:50:39 1X11161B 017 ISC2- 6308059 06/10/2011 21:57:31 1X11161B <tr< td=""><td>005</td><td>OPEX4AA</td><td>OPEX41124C</td><td></td><td>20:35:12</td><td>1X11161B</td></tr<>	005	OPEX4AA	OPEX41124C		20:35:12	1X11161B
008 OPEX1AA OPEX11124C 06/10/2011 20:55:46 1X11161B 009 MDOXXAA MDOXX1124C 06/10/2011 21:02:38 1X11161B 010 PBLK22161 BLANKA 06/10/2011 21:09:29 1X11161B 011 LCSD2161 LCSA 06/10/2011 21:23:12 1X11161B 012 LCSD22161 LCSDA 06/10/2011 21:30:04 1X11161B 013 ISC1- 6308055 06/10/2011 21:30:04 1X11161B 014 ISC1- 6308056 06/10/2011 21:36:55 1X11161B 015 ISC1- 6308056 06/10/2011 21:36:55 1X11161B 015 ISC1- 6308057 06/10/2011 21:33:47 1X11161B 016 ISC1D 6308058 06/10/2011 21:50:39 1X11161B 017 ISC2- 6308059 06/10/2011 21:57:31 1X11161B 018 PZ16R 6308074 06/10/2011 22:04:22 1X11161B	006	ОРЕХЗАА	OPEX31124C	06/10/2011	20:42:03	1X11161B
009 MDOXXAA MDOXX1124C 06/10/2011 21:02:38 1X11161B 010 PBLK22161 BLANKA 06/10/2011 21:09:29 1X11161B 011 LCS22161 LCSA 06/10/2011 21:16:20 1X11161B 012 LCSD22161 LCSDA 06/10/2011 21:31:2 1X11161B 012 LCSD22161 LCSDA 06/10/2011 21:30:04 1X11161B 013 ISC1- 6308055 06/10/2011 21:30:04 1X11161B 014 ISC1- 6308056 06/10/2011 21:36:55 1X11161B 015 ISC1- 6308057 06/10/2011 21:50:39 1X11161B 016 ISC1D 6308058 06/10/2011 21:50:39 1X11161B 017 ISC2- 6308059 06/10/2011 21:57:31 1X11161B 018 PZ16R 6308074 06/10/2011 22:04:22 1X11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 1X11161B	007	OPEX2AA	OPEX21124C	06/10/2011	20:48:55	1X11161B
010 PBLK22161 BLANKA 06/10/2011 21:09:29 IX11161B 011 LCS22161 LCSA 06/10/2011 21:16:20 IX11161B 012 LCSD22161 LCSDA 06/10/2011 21:23:12 IX11161B 013 ISC1- 6308055 06/10/2011 21:30:04 IX11161B 014 ISC1- 6308056 06/10/2011 21:36:55 IX11161B 015 ISC1- 6308057 06/10/2011 21:43:47 IX11161B 016 ISC1D 6308058 06/10/2011 21:50:39 IX11161B 017 ISC2- 6308059 06/10/2011 21:57:31 IX11161B 018 PZ16R 6308074 06/10/2011 22:04:22 IX11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 IX11161B 020 PZ17R 6308075 06/10/2011 22:18:05 IX11161B 021 SD-1 6308076 06/10/2011 22:31:49 IX11161B <t< td=""><td>800</td><td>OPEX1AA</td><td>OPEX11124C</td><td>06/10/2011</td><td>20:55:46</td><td>1X11161B</td></t<>	800	OPEX1AA	OPEX11124C	06/10/2011	20:55:46	1X11161B
011 LCS22161 LCSA 06/10/2011 21:16:20 1X11161B 012 LCSD22161 LCSDA 06/10/2011 21:23:12 1X11161B 013 ISC1- 6308055 06/10/2011 21:30:04 1X11161B 014 ISC1- 6308056 06/10/2011 21:36:55 1X11161B 015 ISC1- 6308057 06/10/2011 21:43:47 1X11161B 016 ISC1D 6308058 06/10/2011 21:50:39 1X11161B 017 ISC2- 6308059 06/10/2011 21:57:31 1X11161B 017 ISC2- 6308059 06/10/2011 22:04:22 1X11161B 018 PZ16R 6308074 06/10/2011 22:11:14 1X11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 1X11161B 020 PZ17R 6308075 06/10/2011 22:18:05 1X11161B 021 SD-1 6308076 06/10/2011 22:31:49 1X11161B 0	009	MDOXXAA	MDOXX1124C	06/10/2011	21:02:38	1X11161B
012 LCSD22161 LCSDA 06/10/2011 21:23:12 1X11161B 013 ISC1- 6308055 06/10/2011 21:30:04 1X11161B 014 ISC1- 6308056 06/10/2011 21:36:55 1X11161B 015 ISC1- 6308057 06/10/2011 21:43:47 1X11161B 016 ISC1D 6308058 06/10/2011 21:50:39 1X11161B 017 ISC2- 6308059 06/10/2011 21:57:31 1X11161B 018 PZ16R 6308074 06/10/2011 22:04:22 1X11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 1X11161B 020 PZ17R 6308075 06/10/2011 22:18:05 1X11161B 021 -SD-1 6308076 06/10/2011 22:24:57 1X11161B 022 5-XXX 6309550 06/10/2011 22:38:41 1X11161B 023 1-XXX 6309553 06/10/2011 22:38:41 1X11161B	010	PBLK22161	BLANKA	06/10/2011	21:09:29	1X11161B
013 ISC1- 6308055 06/10/2011 21:30:04 IX11161B 014 ISC1- 6308056 06/10/2011 21:36:55 IX11161B 015 ISC1- 6308057 06/10/2011 21:43:47 IX11161B 016 ISC1D 6308058 06/10/2011 21:50:39 IX11161B 017 ISC2- 6308059 06/10/2011 21:57:31 IX11161B 018 PZ16R 6308074 06/10/2011 22:04:22 IX11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 IX11161B 020 PZ17R 6308075 06/10/2011 22:18:05 IX11161B 021 SD-1 6308076 06/10/2011 22:24:57 IX11161B 022 5-XXX 6309550 06/10/2011 22:31:49 IX11161B 023 1-XXX 6309553 06/10/2011 22:45:34 IX11161B 024 2-XXX 6309555 06/10/2011 22:52:26 IX11161B 026	011	LCS22161	LCSA	06/10/2011	21:16:20	1X11161B
014 ISC1- 6308056 06/10/2011 21:36:55 IX11161B 015 ISC1- 6308057 06/10/2011 21:43:47 IX11161B 016 ISC1D 6308058 06/10/2011 21:50:39 IX11161B 017 ISC2- 6308059 06/10/2011 21:57:31 IX11161B 018 PZ16R 6308074 06/10/2011 22:04:22 IX11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 IX11161B 020 PZ17R 6308075 06/10/2011 22:18:05 IX11161B 021 SD-1 6308076 06/10/2011 22:24:57 IX11161B 022 5-XXX 6309550 06/10/2011 22:31:49 IX11161B 023 1-XXX 6309553 06/10/2011 22:38:41 IX11161B 024 2-XXX 6309555 06/10/2011 22:45:34 IX11161B 025 S-XXX 6309555 06/10/2011 22:52:26 IX11161B 026	012	LCSD22161	LCSDA	06/10/2011	21:23:12	1X11161B
015 ISC1- 6308057 06/10/2011 21:43:47 IX11161B 016 ISC1D 6308058 06/10/2011 21:50:39 IX11161B 017 ISC2- 6308059 06/10/2011 21:57:31 IX11161B 018 PZ16R 6308074 06/10/2011 22:04:22 IX11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 IX11161B 020 PZ17R 6308075 06/10/2011 22:18:05 IX11161B 021 SD-1 6308076 06/10/2011 22:31:49 IX11161B 022 5-XXX 6309550 06/10/2011 22:33:49 IX11161B 023 1-XXX 6309553 06/10/2011 22:38:41 IX11161B 024 2-XXX 6309554 06/10/2011 22:45:34 IX11161B 025 S-XXX 6309555 06/10/2011 22:52:26 IX11161B 026 EDSD0 6310720 06/10/2011 23:06:10 IX11161B 028	013	ISC1-	6308055	06/10/2011	21:30:04	1X11161B
016 ISC1D 6308058 06/10/2011 21:50:39 1X11161B 017 ISC2- 6308059 06/10/2011 21:57:31 1X11161B 018 PZ16R 6308074 06/10/2011 22:04:22 1X11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 1X11161B 020 PZ17R 6308075 06/10/2011 22:18:05 1X11161B 021 SD-1 6308076 06/10/2011 22:24:57 1X11161B 022 5-XXX 6309550 06/10/2011 22:31:49 1X11161B 023 1-XXX 6309553 06/10/2011 22:38:41 1X11161B 024 2-XXX 6309554 06/10/2011 22:45:34 1X11161B 025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:06:10 1X11161B 029	014	ISC1-	6308056	06/10/2011	21:36:55	1X11161B
017 ISC2- 6308059 06/10/2011 21:57:31 1X11161B 018 PZ16R 6308074 06/10/2011 22:04:22 1X11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 1X11161B 020 PZ17R 6308075 06/10/2011 22:18:05 1X11161B 021 SD-1 6308076 06/10/2011 22:24:57 1X11161B 022 5-XXX 6309550 06/10/2011 22:31:49 1X11161B 023 1-XXX 6309553 06/10/2011 22:38:41 1X11161B 024 2-XXX 6309554 06/10/2011 22:45:34 1X11161B 025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:13:03 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029	015	ISC1-	6308057	06/10/2011	21:43:47	1X11161B
018 PZ16R 6308074 06/10/2011 22:04:22 1X11161B 019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 1X11161B 020 PZ17R 6308075 06/10/2011 22:18:05 1X11161B 021 SD-1 6308076 06/10/2011 22:24:57 1X11161B 022 5-XXX 6309550 06/10/2011 22:31:49 1X11161B 023 1-XXX 6309553 06/10/2011 22:38:41 1X11161B 024 2-XXX 6309554 06/10/2011 22:45:34 1X11161B 025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:13:03 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029 EDSD5 6310723 06/10/2011 23:19:55 1X11161B 031	016	ISC1D	6308058	06/10/2011	21:50:39	1X11161B
019 OPEX3DW OPEX31124C 06/10/2011 22:11:14 1X11161B 020 PZ17R 6308075 06/10/2011 22:18:05 1X11161B 021 -SD-1 6308076 06/10/2011 22:24:57 1X11161B 022 5-XXX 6309550 06/10/2011 22:31:49 1X11161B 023 1-XXX 6309553 06/10/2011 22:38:41 1X11161B 024 2-XXX 6309554 06/10/2011 22:45:34 1X11161B 025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:06:10 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029 EDSD5 6310723 06/10/2011 23:19:55 1X11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:33:39 1X11161B	017	ISC2-	6308059	06/10/2011	21:57:31	1X11161B
020 PZ17R 6308075 06/10/2011 22:18:05 1X11161B 021 SD-1 6308076 06/10/2011 22:24:57 1X11161B 022 5-XXX 6309550 06/10/2011 22:31:49 1X11161B 023 1-XXX 6309553 06/10/2011 22:38:41 1X11161B 024 2-XXX 6309554 06/10/2011 22:45:34 1X11161B 025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:06:10 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029 EDSD5 6310723 06/10/2011 23:19:55 1X11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 1X11161B 031 MMB-2 6310724 06/10/2011 23:33:39 1X11161B	018	PZ16R	6308074	06/10/2011	22:04:22	1 X 11161B
021 SD-1 6308076 06/10/2011 22:24:57 1X11161B 022 5-XXX 6309550 06/10/2011 22:31:49 1X11161B 023 1-XXX 6309553 06/10/2011 22:38:41 1X11161B 024 2-XXX 6309554 06/10/2011 22:45:34 1X11161B 025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:06:10 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029 EDSD5 6310723 06/10/2011 23:19:55 1X11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 1X11161B 031 MMB-2 6310724 06/10/2011 23:33:39 1X11161B	019	OPEX3DW	OPEX31124C	06/10/2011	22:11:14	1X11161B
022 5-XXX 6309550 06/10/2011 22:31:49 IXI1161B 023 1-XXX 6309553 06/10/2011 22:38:41 1X11161B 024 2-XXX 6309554 06/10/2011 22:45:34 1X11161B 025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:06:10 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029 EDSD5 6310723 06/10/2011 23:19:55 1X11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 1X11161B 031 MMB-2 6310724 06/10/2011 23:33:39 1X11161B	020	PZ17R	6308075	06/10/2011	22:18:05	1X11161B
023 1-XXX 6309553 06/10/2011 22:38:41 1X11161B 024 2-XXX 6309554 06/10/2011 22:45:34 1X11161B 025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:06:10 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029 EDSD5 6310723 06/10/2011 23:19:55 1X11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 1X11161B 031 MMB-2 6310724 06/10/2011 23:33:39 1X11161B	02 I	-SD-1	6308076	06/10/2011	22:24:57	IX11161B
024 2-XXX 6309554 06/10/2011 22:45:34 1X11161B 025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:06:10 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029 EDSD5 6310723 06/10/2011 23:19:55 1X11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 1X11161B 031 MMB-2 6310724 06/10/2011 23:33:39 1X11161B	022	5-XXX	6309550	06/10/2011	22:31:49	IXI1161B
025 S-XXX 6309555 06/10/2011 22:52:26 1X11161B 026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:06:10 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029 EDSD5 6310723 06/10/2011 23:19:55 1X11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 1X11161B 031 MMB-2 6310724 06/10/2011 23:33:39 1X11161B	023	1-XXX	6309553	06/10/2011	22:38:41	1X11161B
026 EDSD0 6310720 06/10/2011 22:59:18 1X11161B 027 EDSD1 6310721 06/10/2011 23:06:10 1X11161B 028 EDSD2 6310722 06/10/2011 23:13:03 1X11161B 029 EDSD5 6310723 06/10/2011 23:19:55 1X11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 1X11161B 031 MMB-2 6310724 06/10/2011 23:33:39 1X11161B	024	2-XXX	6309554	06/10/2011	22:45:34	1X11161B
027 EDSD1 6310721 06/10/2011 23:06:10 IX11161B 028 EDSD2 6310722 06/10/2011 23:13:03 IX11161B 029 EDSD5 6310723 06/10/2011 23:19:55 IX11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 IX11161B 031 MMB-2 6310724 06/10/2011 23:33:39 IX11161B	025	S-XXX	6309555	06/10/2011	22:52:26	1X11161B
028 EDSD2 6310722 06/10/2011 23:13:03 IX11161B 029 EDSD5 6310723 06/10/2011 23:19:55 IX11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 IX11161B 031 MMB-2 6310724 06/10/2011 23:33:39 IX11161B	026	EDSD0	6310720	06/10/2011	22:59:18	1X11161B
029 EDSD5 6310723 06/10/2011 23:19:55 IX11161B 030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 IX11161B 031 MMB-2 6310724 06/10/2011 23:33:39 IX11161B	027	EDSD1	6310721	06/10/2011	23:06:10	IX11161B
030 OPEX3DX OPEX31124C 06/10/2011 23:26:47 1X11161B 031 MMB-2 6310724 06/10/2011 23:33:39 1X11161B	028	EDSD2	6310722	06/10/2011	23:13:03	IX11161B
031 MMB-2 6310724 06/10/2011 23:33:39 1X11161B	029	EDSD5	6310723	06/10/2011	23:19:55	IX11161B
	030	OPEX3DX	OPEX31124C	06/10/2011	23:26:47	1X11161B
032 OPEX3DY OPEX31124C 06/10/2011 23:40:32 IX11161B	031	MMB-2	6310724	06/10/2011	23:33:39	1X11161B
	032	OPEX3DY	OPEX31124C	06/10/2011	23:40:32	IX11161B

Sequence: 1X11166

Lab Name: Lancaster laboratories

Contract:

Lab Code:

Case No.:

SAS No:

SDG No.:

GC Column: SUP-PAH

ID: 4.6

Instrument: K3593A

Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
	CONDITIONER	06/15/2011	19:11:51	1X11166
	CONDITIONER	06/15/2011	19:18:42	1X11166
	CONDITIONER	06/15/2011	19:25:33	1X11166
OPEX5AA	OPEX51124C	06/15/2011	19:32:24	1XI1166
OPEX4AA	OPEX41124C	06/15/2011	19:39:16	1X11166
ОРЕХЗАА	OPEX31124C	06/15/2011	19:46:07	1X11166
OPEX2AA	OPEX21124C	06/15/2011	19:52:59	1X11166
OPEX1AA	OPEX11124C	06/15/2011	19:59:49	1X11166
MDOXXAA	MDOXX1124C	06/15/2011	20:06:41	1X11166
PZ17R	6308075	06/15/2011	20:13:32	1X11166
-SD-1	6308076	06/15/2011	20:20:23	1X11166
5-XXX	6309550	06/15/2011	20:27:15	1X11166
1-XXX	6309553	06/15/2011	20:34:06	1X11166
2-XXX	6309554	06/15/2011	20:40:59	1X11166
S-XXX	6309555	06/15/2011	20:47:50	1X11166
EDSD0	6310720	06/15/2011	20:54:42	1X11166
EDSD1	6310721	06/15/2011	21:01:34	1X11166
EDSD2	6310722	06/15/2011	21:08:25	1X11166
EDSD5	6310723	06/15/2011	21:15:17	1X11166
OPEX3DZ	OPEX31124C	06/15/2011	21:22:08	1X11166
MMB-2	6310724	06/15/2011	21:29:00	1X11166
OPEX3EA	OPEX31124C	06/15/2011	21:35:52	1X11166

Sequence: 1X11166B

Lab Name: Lancaster laboratories

Contract:

Lab Code:

Case No.:

SAS No:

SDG No.:

GC Column: CAPCELL-CN

ID: 4.6

Instrument: K3593B

Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
	CONDITIONER	06/15/2011	19:11:51	1X11166B
 	CONDITIONER	06/15/2011	19:18:42	1X11166B
	CONDITIONER	06/15/2011	19:25:33	1X11166B
OPEX5AA	OPEX51124C	06/15/2011	19:32:24	1X11166B
OPEX4AA	OPEX41124C	06/15/2011	19:39:16	1X11166B
ОРЕХЗАА	OPEX31124C	06/15/2011	19:46:07	1X11166B
OPEX2AA	OPEX21124C	06/15/2011	19:52:59	1X11166B
OPEX1AA	OPEX11124C	06/15/2011	19:59:49	1X11166B
MDOXXAA	MDOXX1124C	06/15/2011	20:06:41	1X11166B
PZ17R	6308075	06/15/2011	20:13:32	IX11166B
-SD-1	6308076	06/15/2011	20:20:23	1X11166B
5-XXX	6309550	06/15/2011	20:27:15	1X11166B
1-XXX	6309553	06/15/2011	20:34:06	1X11166B
2-XXX	6309554	06/15/2011	20:40:59	1X11166B
S-XXX	6309555	06/15/2011	20:47:50	1X11166B
EDSD0	6310720	06/15/2011	20:54:42	1X11166B
EDSD1	6310721	06/15/2011	21:01:34	1X11166B
EDSD2	6310722	06/15/2011	21:08:25	1X11166B
EDSD5	6310723	06/15/2011	21:15:17	1X11166B
OPEX3DZ	OPEX31124C	06/15/2011	21:22:08	1X11166B
ммв-2	6310724	06/15/2011	21:29:00	1X11166B
OPEX3EA	OPEX31124C	06/15/2011	21:35:52	1X11166B

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS22161

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

ID:

SAS No.:

SDG No.:

Lab Sample ID: LCSA

014010044

Date(s) Analyzed: 6/10/2011

6/10/2011

Instrument ID (1): K3593A

Instrument ID (2): K3593B

GC Column (1):

(mm)

GC Column (2):

ID:

(mm)

ANALYTE	COL	RT	FROM	то	CONCENTRATION	%D
Opex	1	2.11	2.02	2.22	690	
	2	5.32		5.41	690	0.0

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCSD22161

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSDA

Date(s) Analyzed: 6/10/2011

<u>6/10/2011</u>

Instrument ID (1): K3593A

Instrument ID (2): K3593B

GC Column (1):

ID:

(mm)

GC Column (2):

ID:

(mm)

ANALYTE	COL	RT	FROM	то	CONCENTRATION	%D
Opex	1	2.13	2.02	2.22	690	
	2	5.24	5.21	5.41	690	0.0

Sample Data



Fraction: Opex

LOQ/MDL Summary Pesticide Residue Analysis

SDG: OLN70

02726: Opex in Water	Default	Default	Units
Analyte Name	MDL	LOQ	
Opex in Water	20	100	ug/l

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

PZ16R

Lab Name: Lançaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

SAS No.:

SDG No.: OLN70

Matrix: (soil/water) WATER

Lab Sample ID: 6308074

Sample wt/vol:

10 (g/ml) ml

Lab File ID: 1X11161.18R

% Moisture:

Decanted: (Y/N)

Date Received: 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 6/10/2011

Concentrated Extract Volume:

10000 (uL)

Date Analyzed: 6/10/2011

Injection Volume:

Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 101-25-7

COMPOUND

Opex

(UG/L or UG/KG) ug/I

Q 20\U

Lancaster Laboratories-Single Component Data Summary

PZ16R Sample ID: AA Batchnumber: 111610022A Sample Name: 6308074 Analyst: 1566 SDG: OLN70 State: MA Sample Amount: 10 Total Volume: 10 шl Analyses: 02726 10342 Analysis Report (B) Analysis Report (A) Injected on : JUN 10, 2011 22:04:22 : CP09-K3593B Injected on : JUN 10, 2011 22:04:22 Instrument CP09--K3593A Instrument Result file Result file : 1X11161,18R : 1X11161B.18R Calibration file : 1X11161B.CAL Calibration file : 1X11161.CAL Method file : OPEXB.MET Method file : OPEX.MET <u>R.T.</u> Peak name <u>Min</u> Max <u>Amount</u> **Height** -86.032471 5.41 Opex 5.21 5.26 **Summary Report** Compound Name Column Amount Found LOQ <u>MDL</u> Qualifiers %Difference Comments <100 <20 ✓ Opex Units: ug/l

Verified by: .

Date:

Valerie Tomayko Senior Specialist

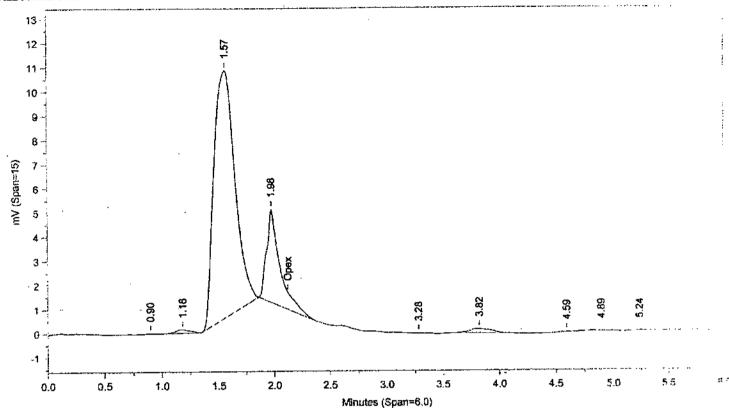
JUN 1 6 2011

Reviewed by: _

Date:

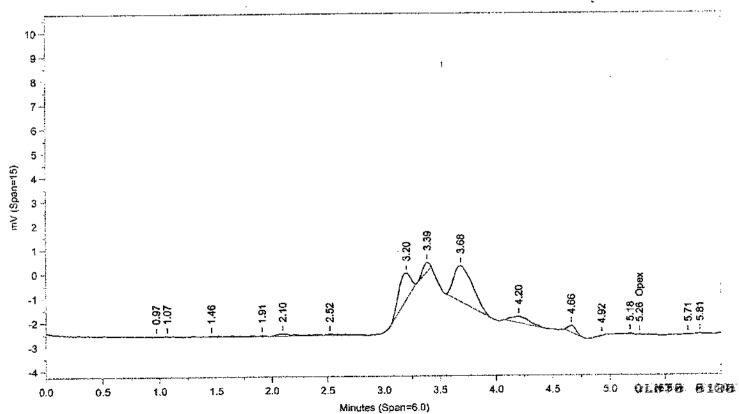
LANCASTER LABORATORIES





Instrument ID: CP09-K3593A Injected On: 6/10/2011 10:04:21 PM





Instrument ID: CP09-K3593B Injected On: 6/10/2011 10:04:21 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

T 111610022A 02726

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Oven Parameters: 75% Phosphate Buffer: 25% ACN

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantitation: Height

Sample Weight: 10

Analyst: 1566

Dilution Factor: 10

Amount A Compound A RT A Height A

RT B Height B

Amount B Compound B

. Opex

5.264

40 -86.032 Opex

Files:

Area File: C:\CPWIN\DATA1\1X11161.18A Area File: C:\CPWIN\DATA1\1X11161B.18A Method A: C:\CPWIN\DATA1\OPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA\\IX\1161.CAL Calibration File B: C-\CPWIN\DATAI\IXI 1161B.CAL

Format A: C:\CPWIN\DATA!\OPEXD.FMTA Format B: C:\CPWIN\DATAI\OPEXD.FMTB Area File Created On: 6/14/2011 6:56:22 PM File Reported On: 6/14/2011 at 6:56:31 PM

1D

SAMPLE CODE NO.

ORGANICS ANALYSIS DATA SHEET

PZ17R

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

SAS No.:

SDG No.: OLN70

Matrix: (soil/water) WATER

Lab Sample ID: 6308075

Sample wt/vol:

10 (g/ml) ml

Lab File ID: 1X11161.20R

% Moisture:

Decanted: (Y/N)

Date Received: 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection

Concentrated Extract Volume:

Date Extracted: 6/10/2011

10000 (uL)

Date Analyzed: 6/10/2011

Injection Volume:

30 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 101-25-7 COMPOUND

Opex

(UG/L or UG/KG) ug/l

Q 20U

01M78 E132

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6308075

PZ17R Total Volume: 10 ml Sample ID: AA Analyst: 1566 Batchnumber: 111610022A SDG: OLN70 State: MA

Sample Amount: 10

Analyses:02726 10342

Analysis Report (A)

Injected on

Instrument

Result file

Method file

Catibration file

Analysis Report (B)

Injected on Instrument

JUN 10, 2011 22:18:05 CP09-K3593B

Result file

: 1X11161B.20R

Calibration file

: 1X11161B.CAL

Method file

: OPEXB.MET

Peak name Opex

R.T. <u>Max</u> <u>Min</u> 5.21 5.22 5.41

Height

<u>Amount</u> 56 -77.345093

Summary Report

Compound Name

Amount Found <u>Column</u>

: JUN 10, 2011 22:18:05 : CP09-K3593A

1X11161.20R

: 1X11161.CAL

: OPEX.MET

LOQ

<100

MDL Qualifiers

%Difference

Comments

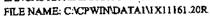
|✓ Opex Units: ug/l

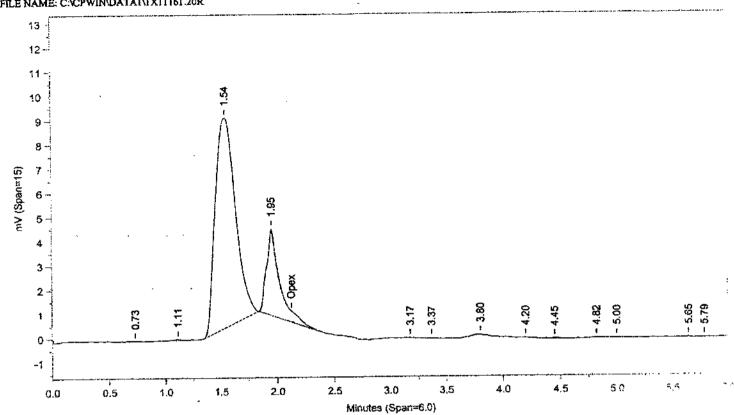
Verified by:

<20

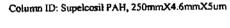
Date:

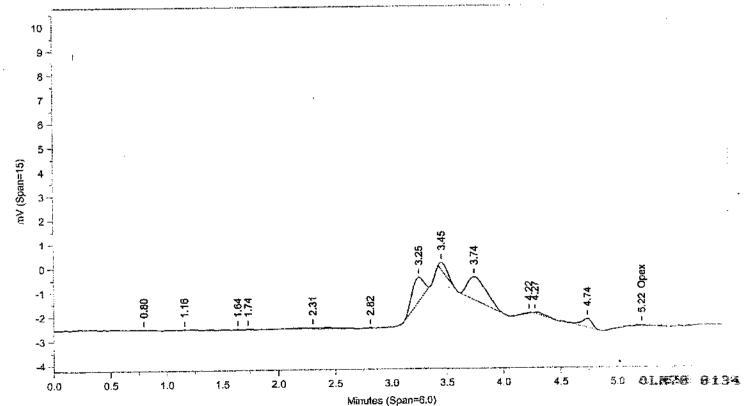
0LN78 8133





Instrument ID: CP09--K3593A Injected On: 6/10/2011 10:18:04 PM





Instrument ID: CP09-K3593B Injected On: 6/10/2011 10:18:04 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer: 25% ACN

Volume Inj: 1

Area Reject: 100

Area Reject: 100

Quantitaion: Height

Dilution Factor: 10

RTB

Quantitation: Height

Detector A Parameters:

Threshold: 4

Width: 0.1

Calibration Type: External

Detector B Parameters: Width: 0.1 Threshold: -4

Calibration Type: External

Sample Weight: 10

Analyst: 1566

RT A Height A

Amount A Compound A

. Opex

5.218

56

Height B

-77.345 Opex

Amount B Compound B

Files:

Area File: C:\CPWIN\DATA1\IX11161.20A Area File: C:\CPWIN\DATA1\1X11161B.20A Method A: C:\CPWIN\DATA1\OPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA\\IXI\1161.CAL Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL

Format A: C:\CPWIN\DATAI\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/14/2011 6:57:02 PM File Reported On: 6/14/2011 at 6:57:11 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

PZ17R **₽**

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

SAS No.:

SDG No.: OLN70

Matrix: (soil/water) WATER

Lab Sample ID: 6308075

Sample wt/vol:

10 (g/ml) ml

Lab File ID: 1X11166.10R

% Moisture:

Decanted: (Y/N)

Date Received: 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection

Concentrated Extract Volume:

10000 (uL)

Date Extracted: 6/10/2011 Date Analyzed: 6/15/2011

Injection Volume:

30 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/L

Q

101-25-7

Opex

20[U

\$

Lancaster Laboratories-Single Component Data Summary

mí

Sample Name: 6308075 RI

PZ17R

Sample ID: AA

Batchnumber: 111610022A

Sample Amount: 10 Analyses: 02726 10342

ml

Total Volume: 10

Analyst: 1566

SDG: OLN70

State: MA

Analysis Report (A)

Injected on

JUN 15, 2011 20:13:32 CP09-K3593A

Instrument Result file Calibration file

Method file

: 1X11166.10R

: 1X11166.CAL : OPEX.MET

Analysis Report (B)

Injected on

JUN 15, 2011 20:13:32 CP09--K3593B

Instrument Result file

1X11166B.10R

Catibration file

: 1X11166B.CAL

Method file

: OPEXB.MET

Summary Report

Compound Name

<u>Çolumn</u>

Amount Found

LQQ

<1<u>00</u>

MOL

Qualifiers

%Difference Comments

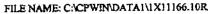
Units: ug/l

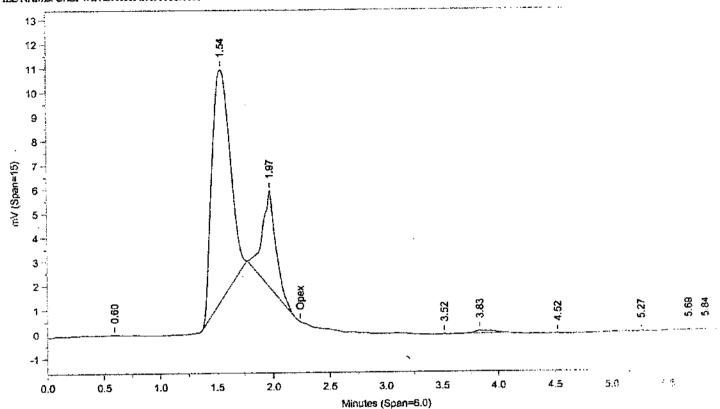
✓ Opex

Reviewed by

Verified by:

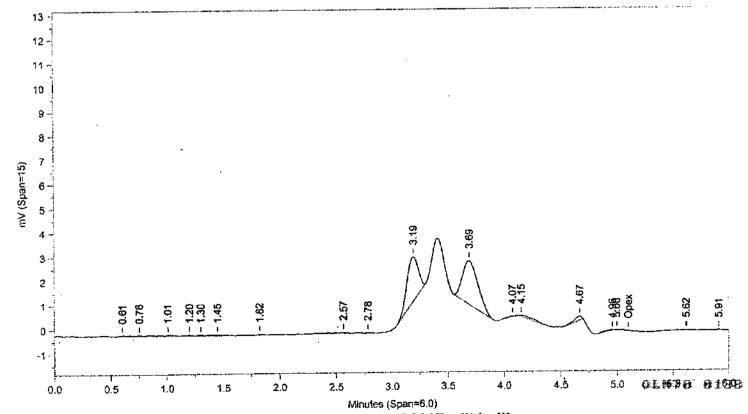
Date:





Instrument ID: CP09--K3593A Injected On: 6/15/2011 8:13:31 PM





Instrument ID: CP09--K3593B Injected On: 6/15/2011 8:13:31 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

6308075 RI

AAPZ17R

Oven Parameters: 75% Phosphate Buffer: 25% ACN

T 111610022A

Volume Inj: 1

02726

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantization: Height

Sample Weight: 10

Analyst: 1566

Dilution Factor: 10

RT A Height A Amount A Compound A

RTB

Height B

Amount B Compound B

Files:

Area File: C:\CPWIN\DATA1\1X11166.10A Area File: C:\CPWIN\DATA1\1X11166B.10A Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA\\\X\1166.CAL

Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL

Format A: C:\CPWIN\DATA\VOPEXD.FMTA

Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/16/2011 8:55:04 PM

File Reported On: 6/16/2011 at 8:55:13 PM

1D

SAMPLE CODE NO.

ORGANICS ANALYSIS DATA SHEET

-SD-1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

SAS No.:

SDG No.: OLN70

Matrix: (soil/water) WATER

Lab Sample ID: 6308076

Sample wt/vol:

10 (g/ml) ml

Lab File ID: 1X11161.21R

% Moisture:

Decanted: (Y/N)

Date Received: 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 6/10/2011

Concentrated Extract Volume:

10000 (uL)

Date Analyzed: 6/10/2011

Injection Volume:

30 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

:Hq

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 101-25-7

COMPOUND

Opex

(UG/L or UG/KG) ug/l

Q 20U

OLNTO OLAG

Lancaster Laboratories-Single Component Data Summary

mi

Sample Name: 6308076

Sample Amount: 10 ml -SD-1

Total Volume: 10

Sample ID: AA Analyst: 1566

Batchnumber: 111610022A SDG: OLN70

State: MA

Analyses:02726 10342

Analysis Report (A)

JUN 10, 2011 22:24:57 CP09-K3593A

Injected on Instrument Result file

1X11161.21R

Calibration file Method file

: 1X11161,CAL : OPEX.MET

Analysis Report (B) Injected on

JUN 10, 2011 22:24:57 CP09--K3593B

Instrument

Result file

1X11161B.21R

Calibration file

: 1X11161B.CAL

Method file

: OPEXB.MET

Summary Report

Compound Name

Column

Amount Found

LOQ

<100

MDL

Qualifiers

%Difference

Comments

Opex Units: ug/l

Reviewed by:

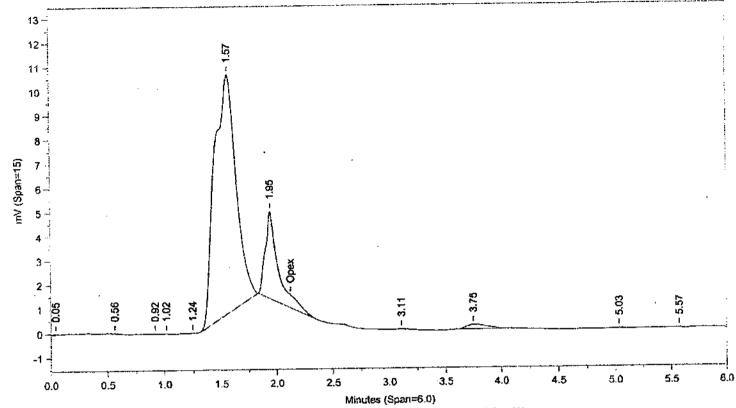
Date:

Verified by:

Date:

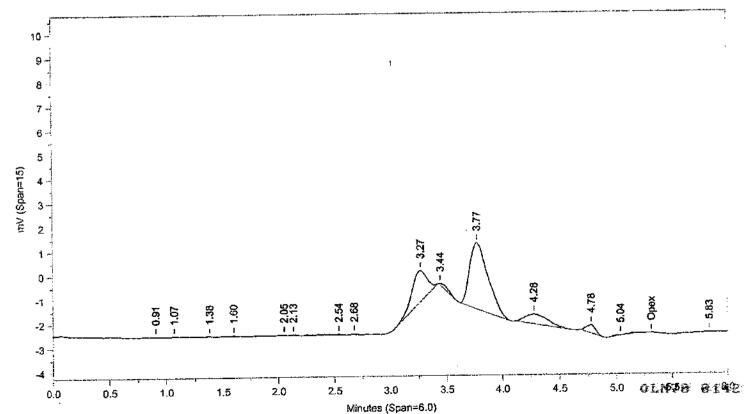
OLN70 8141

FILE NAME: C:\CPWIN\DATA1\IX11161.21R



Instrument ID: CP09-K3593A Injected On: 6/10/2011 10:24:56 PM





Instrument ID: CP09--K3593B Injected On: 6/10/2011 10:24:57 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

6308076

Oven Parameters: 75% Phosphate Buffer: 25% ACN

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantiation: Height

Sample Weight: 10

Analyst: 1566

Dilution Factor: 10

RTA Height A Amount A Compound A

RTB Height B Amount B Compound B

Files:

Area File: C:\CPWIN\DATA1\1X11161.21A

Area File: C:\CPWIN\DATA1\1X1\161B.21A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA1\1X11161.CAL

Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA

FORmat B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/14/2011 6:57:22 PM

File Reported On: 6/14/2011 at 6:57:31 PM

ORGANICS ANALYSIS DATA SHEET

1D

SAMPLE CODE NO.

-SD-1 DI

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

SAS No.:

SDG No.: OLN70

Matrix: (soil/water) WATER

Sample wt/vol:

Lab Sample ID: 6308076

10 (g/ml) ml

Lab File ID: 1X11166.11R

% Moisture:

Decanted: (Y/N)

Date Received: 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 6/10/2011

Concentrated Extract Volume:

10000 (uL)

Date Analyzed: 6/15/2011

Injection Volume:

30 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 101-25-7

COMPOUND

Opex

(UG/L or UG/KG) ug/l

Q 20U

Lancaster Laboratories-Single Component Data Summary

Batchnumber: 111610022A Sample Name: 6308076 RI -SD-1 Sample ID: AA Analyst: 1566 SDG: OLN70 State: MA Sample Amount: 10 Total Volume: 10 ml ml Analyses: 02726 10342 Analysis Report (B) Analysis Report (A) JUN 15, 2011 20:20:23 CP09-K3593B injected on : JUN 15, 2011 20:20:23 : CP09-K3593A Injected on Instrument Instrument Result file Result file 1X11166.11R 1X11166B.11R Calibration file 1X11166B.CAL Calibration file : 1X11166.CAL Method file : OPEXB.MET Method file : OPEX.MET Peak name Min <u>R.T.</u> Max Height **Amount** -68.524536 5.00 5.10 5.20 Opex **Summary Report** LQQ MDL Qualifiers %Difference Comments Amount Found Compound Name Column ✓ Opex <100 <20 Units: ug/l Verified by: Reviewed by

Date:

Date:

01876 81606

5.0

6308076 RI

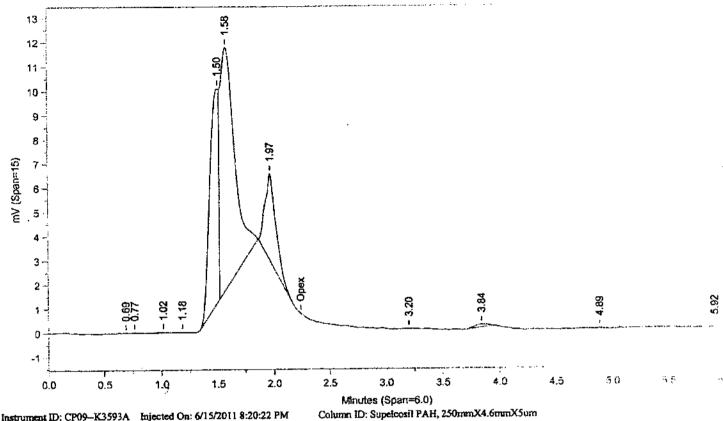
AA-SD-1

111610022A

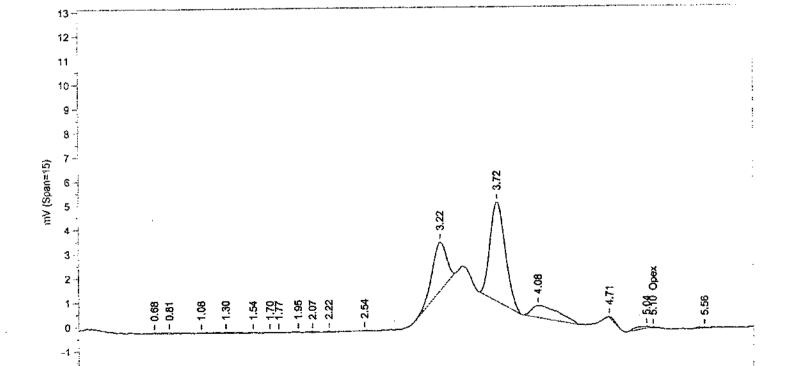
02726

LANCASTER LABORATORIES





Instrument ID: CP09-K3593A Injected On: 6/15/2011 8:20:22 PM



2.5

2.0

Instrument ID: CP09-K3593B Injected On: 6/15/2011 8:20:22 PM

1.0

1.5

0.5

0.0

Column ID: Capcell CN, 250mmX4.6mmX5um

3.0

Minutes (Span=6.0)

3.5

4.0

4.5

Volume înj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantitaion: Height

Calibration Type: External

Sample Weight: 10 Analyst: 1566

Dilution Factor: 10

RT A Height A Amount A Compound A

0

RTB

Amount B Compound B

. Opex

5.101

Height B

24 -68.525 Opex

Files:

Area File: C:\CPWIN\DATA1\1X11166.11A Area File: C:\CPWIN\DATA1\1X11166B.11A Method A: C:\CPWIN\DATA1\OPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET Calibration File A: C:\CPWIN\DATA1\IX11166.CAL Calibration File B: C:\CPWIN\DATA1\IX11166B.CAL Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/16/2011 8:55:24 PM File Reported On: 6/16/2011 at 8:55:33 PM

Standards Data

Lancaster Laboratories

= CHROM PERFECT SEQUENCE FILE ===

Sequence File: \cp9\C-Drive\CPWIMDATA1\1x11161.seq Chromatography Directory: \cp9\C-Drive\CPWIMdata1

Method Directory: \\cp9\C-Drive\CPW1N\data1

Number of Entries: 32

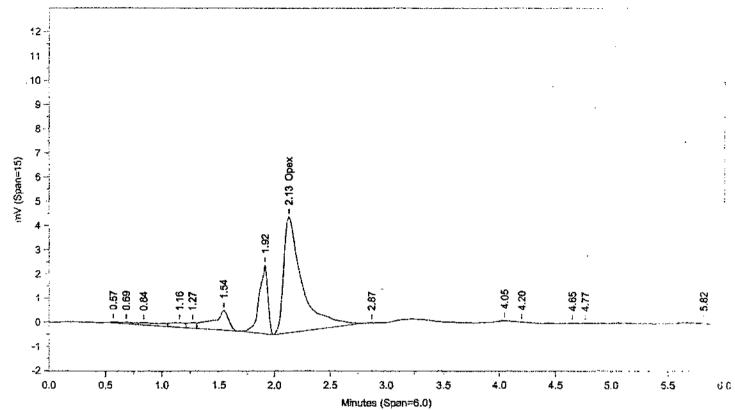
Samplename	Code	<u> ID</u>	<u>FileName</u>	<u>Method</u>		Samp Amt	DF	int Std	<u>c</u>	Batch Number	<u>Analysis</u>
1 CONDITIONER	MISC	AA	1x11161.01R		OPEX.MET	1	1	1	0	1116099999	
2 CONDITIONER	MISC	AA	1x11161.02R		OPEX.MET	1	1	1	0	1116099999	
3 CONDITIONER	MISC	AA	1x11161.03R		OPEX.MET	1	1	1	0	1116099999	
(4 OPEX51124C	ICAL	AA	1x11161.048		OPEX.MET	1	1	1	5	1116099999	
(5)OPEX41124C	ICAL	AA	1x11161,05R		OPEX.MET	1	1	1	4	1116099999	
(6)OPEX31124C	IÇAL	AA	1x11161.06R		OPEX.MET	1	1	1	3	1116099999	
(2)OPEX21124C	ICAL	AΑ	1x11161.07R		OPEX.MET	1	1	1	2	1116099999	
8-OPEX11124C	1CAL	AA	1x11161.08R		OPEX.MET	1	1	1	1	1116099999	
9 MDOXX1124C	ICAL	AA	1x11161.09Fl		OPEX.MET	1	1	1	0	1116099999	
(16)BLANKA 6/10/11	BLK	AA	1x11161.10R		OPEX.MET	10	10	1	0	111610022A	02726
(4) LCSA 6/10/11	LCS	AA	1x11161.11Ħ		OPEX.MET	10	10	1	O	111610022A	02726
(2)LCSDA 6/10/11	LCSD	AA	1x11161.12R		OPEX.MET	10	10	1	0	111610022A	02726
13 6308055	T	AA	1x11161.13R		OPEX.MET	10	10	1	0	111610022A	02726
14 6308056MS	MS	AA	1x11161,14R		OPEX.MET	10	10	1	0	111610022A	02726
15 6308057MSD	MSD	AA	1x11161.15Fl		OPEX.MET	10	10	1	0	111610022A	02726
16 6308058	Ŧ	AA	1x11161.16H		OPEX.MET	10	10	1	0	111610022A	02726
£7\6308059	Ť	AA	1x11161.17A		OPEX.MET	. 10	10	1	0	111610022A	02726
(18/6308074	T	AA	1x11161.18R		OPEX.MET	10	10	1	0	111610022A	02726
(19) OPEX31124C	CCAL	DT	1x11161.19R		OPEX.MET	1	1	1	O	1116099999	
(20/ 6308075	T	AA	1x11161.20R		OPEX.MET	10	10	1	0	111610022A	02726
(21) 6308076	τ	AA	1x11161.21R		OPEX.MET	10	10	1	0	111610022A	02726
22 6309550	T	AA	1x11161.22R		OPEX.MET	10	10	1	0	111610022A	02726
23 6309553	T	AA	1x11161.23R		OPEX.MET	10	10	1	Q	111610022A	02726
24 6309554	T	AΑ	1x11161,24R		OPEX.MET	10	10	1	0	111610022A	02726
25 6309555	T	AΑ	1x11161.25R		OPEX.MET	10	10	1	0	111610022A	02726
26 6310720	1	AA	tx11161.26Fl		OPEX.MET	10	10	1	0	111610022A	02726
27 6310721	Ŧ	AA	1x11161.27R		OPEX.MET	10	10	1	0	111610022A	02726
28 6310722	T	AΑ	1x11161.28R		OPEX.MET	10	10	1	0	111610022A	02726
28 6310723	T	AA	1x11161.29R		OPEX.MET	10	10	1	0	111610022A	02726
(30) OPEX31124C	CCAL	DŪ	1x11161.30R		OPEX.MET	1	1	1	0	1116099999	
31 5310724	Ŧ	AΑ	1x11161.31R		OPEX.MET	10	10	1	0	111610022A	02726
32 OPEX31124C	CCAL	DΥ	1x11161.32R		OPEX.MET	1	1	t	0	1116099999	

Set-up by: 6/10/2011

OLH78 8149

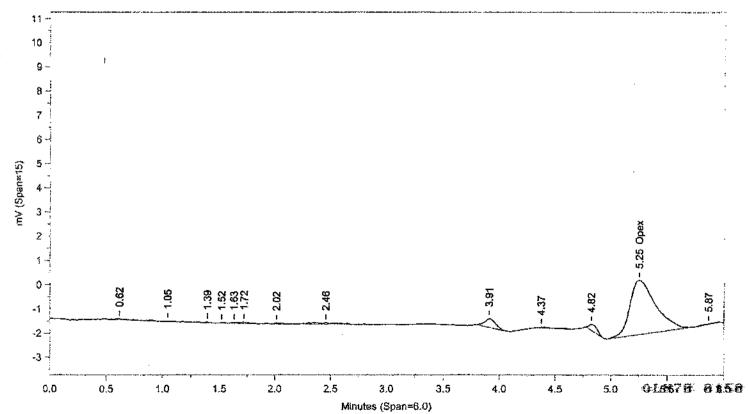
Page 1 of 1





Instrument ID: CP09-K3593A Injected On: 6/10/2011 8:28:20 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 8:28:20 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantitation: Height

Calibration Type: External

Quantitation: Her

Detector B Parameters:

Threshold: 4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantization: Height

Sample Weight: I

Analyst: 1566

Dilution Factor: 1

RT A Height A

Height A Amount A Compound A

RTB Height B

Amount B Compound B

2.131

4793 1110.619 Opex

5.248

2232 1102.247 Opex

Files:

Area File: C:\CPWIN\DATAI\\IX11161.04A Area File: C:\CPWIN\DATAI\\IX11161B.04A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

METHOD B; C; WFWINDATATOPEAD.MET

Calibration File A: C:\CPWIN\DATA\\\X\\\1\161.CAL

Calibration File B: C:\CPWIN\DATA\\IX11161B.CAL

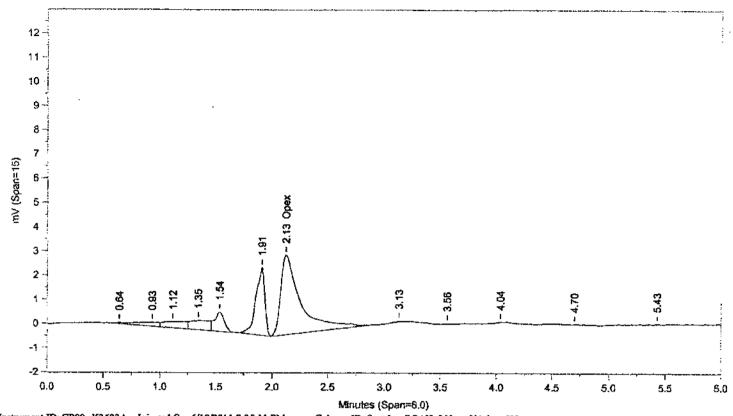
Format A: C:\CPWIN\DATA1\OPEXD.FMTA

Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/14/2011 6:46:14 PM

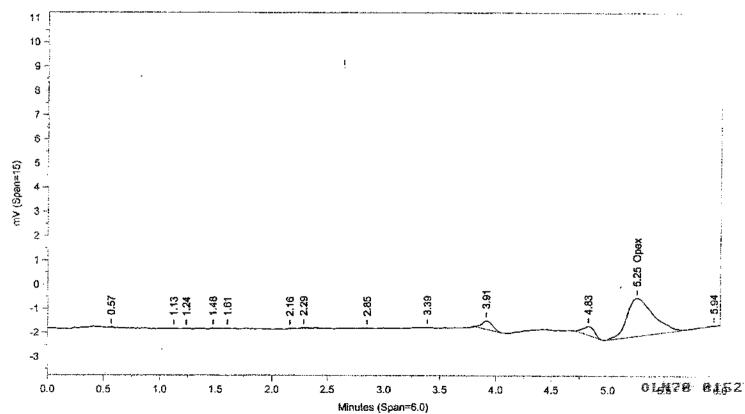
File Reported On: 6/14/2011 at 6:46:27 PM

FILE NAME: C:\CPWIN\DATA1\1X11161.05R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 8:35:11 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 8:35:11 PM

Column ID: Capcell CN, 250mmX4.6mmX5am

Volume Inj: i

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantitation: Height

Calibration Type: External Detector B Parameters:

Threshold: 4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitaion: Height

Sample Weight: 1

Analyst: 1566

Dilution Factor: 1

RT A

Height A Amount A Compound A

RT B

Amount B Compound B

2.126

3302

740.489 Opex

5.254

1576

Height B

746.657 Opex

Files:

Area File: C:\CPWIN\DATA1\1X11161.05A

Area File: C:\CPWIN\DATA1\1X11161B.05A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA1\IX11161.CAL

Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL

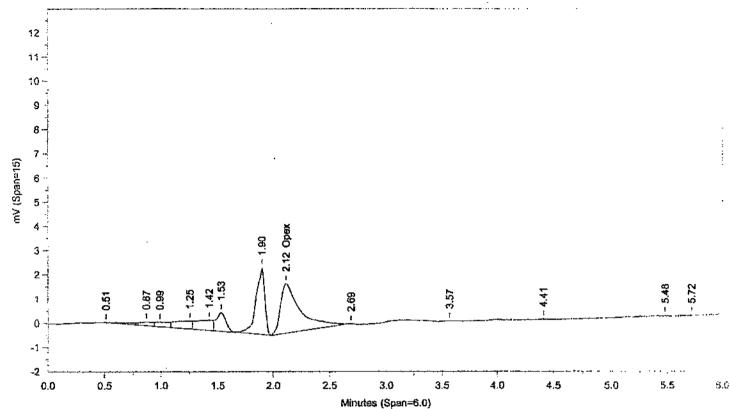
Format A: C:\CPWIN\DATAI\OPEXD.FMTA

Format B: C:\CPWIN\DATA I\OPEXD.FMTB

Area File Created On: 6/14/2011 6:46:40 PM

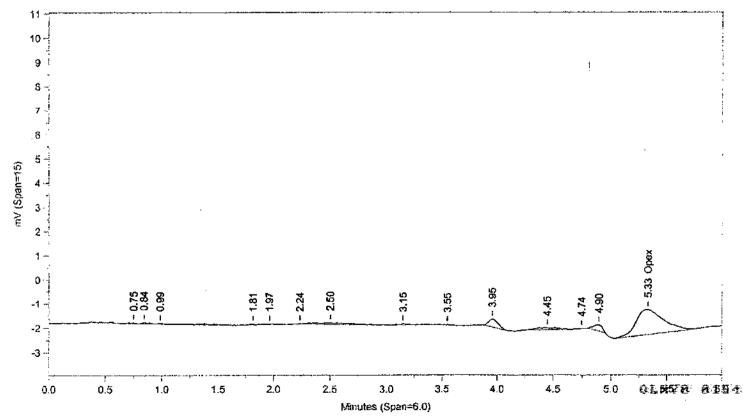
File Reported On: 6/14/2011 at 6:46:52 PM





Instrument ID: CP09--K3593A Injected On: 6/10/2011 8:42:02 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09-K3593B Injected On: 6/10/2011 8:42:02 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitaion: Height

Sample Weight: 1 Analyst: 1566 Dilution Factor: 1

12121901. 1200

Height A

Amount A Compound A

RT B

Height B Arnor

Amount B Compound B

2.117

2039

425.197 Opex

5.328

1034

452.725 Opex

Files:

RT A

Area File: C:\CPWIN\DATA1\1X11161.06A

Area File: C:\CPWIN\DATA1\1X11161B.06A

Method A: C:\CPWIN\DATA1\OPEX,MET

Method B: C:\CPWIN\DATA1\OPEXB,MET

Calibration File A: C:\CPWIN\DATA1\1X11161.CAL

Calibration File B: C:\CPWIN\DATA\\1X11161B.CAL

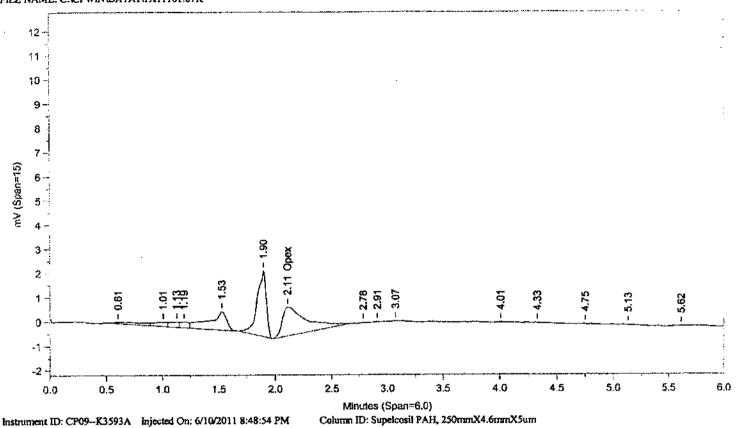
Format A: C:\CPWIN\DATA1\OPEXD.FMTA

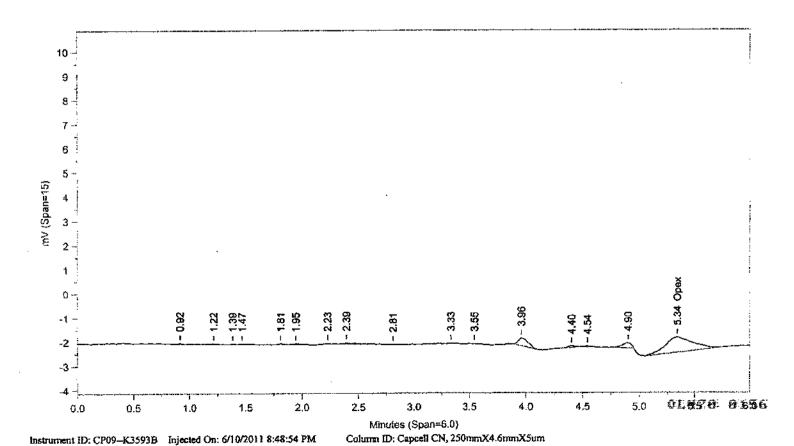
Format B: CACPWINDATA140PEXD.FMTB

Area File Created On: 6/14/2011 6:47:06 PM

File Reported On: 6/14/2011 at 6:47:17 PM

FILE NAME: C:\CPWIN\DATAI\IX11161.07R





Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Calibration Type: External

Threshold: 4 Calibration Type: External Width: 0.1

Area Reject: 100 Quantitaion: Height

Sample Weight: 1 Analyst: 1566

Dilution Factor: 1

RT A Height A Amount A Compound A

RTB

Height B

Amount B Compound B

2.109

1179

211.87 Opex

5.343

619

227.877 Opex

Files:

Area File: C:\CPWIN\DATA1\1X11161.07A

Area File: C:\CPWIN\DATA1\1X11161B.07A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA1\\X\11\61.CAL

Calibration File B: C:\CPWIN\DATA1\IX11161B.CAL

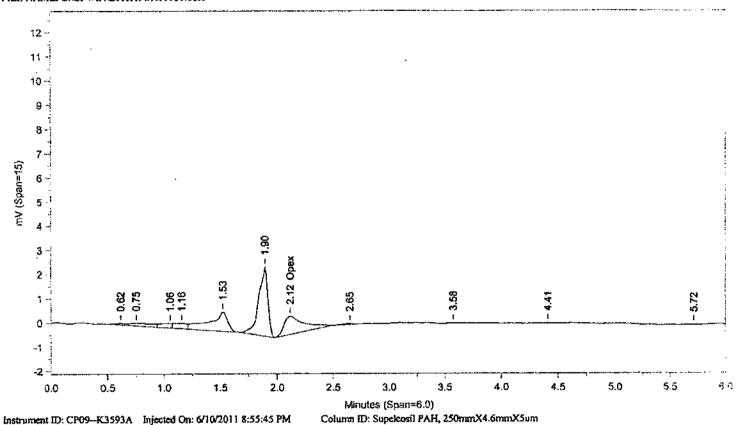
Format A: C:\CPWIN\DATAI\OPEXD.FMTA

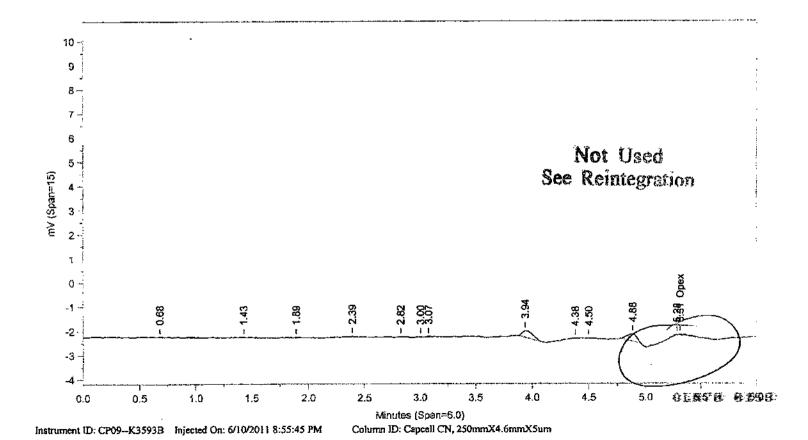
Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/14/2011 6:47:30 PM

File Reported On: 6/14/2011 at 6:47:42 PM

FILE NAME: C:\CPWIN\DATA1\IX11161.08R





Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: 4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantiation: Height

Sample Weight: I

Analyst: 1566

Dilution Factor: 1

RTA Height A Amount A Compound A

RTB

Height B

Amount B Compound B

2.12

107.925 Opex 744

5.311

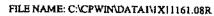
35 -89.016 Opex

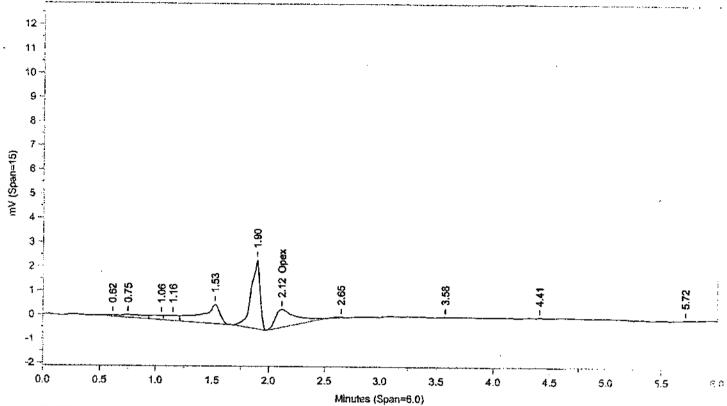
Files:

Area File: C:\CPWIN\DATA1\1X11161.08A Area File: C:\CPWIN\DATAI\IX11161B.08A Method A: C:\CPWIN\DATAI\OPEX.MET Method B: C:\CPWIN\DATAI\OPEXB.MET Calibration File A: C:\CPWIN\DATA1\1X11161.CAL Calibration File B: C:\CPWIN\DATA\\\X11161B.CAL

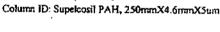
Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATAI\OPEXD.FMTB Area File Created On: 6/14/2011 6:47:56 PM File Reported On: 6/14/2011 at 6:48:06 PM

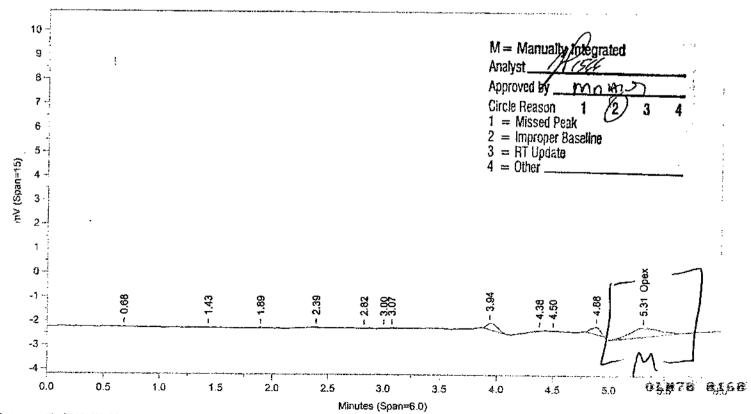
Not Used See Reintegration





Instrument ID: CP09-K3593A Injected On: 6/10/2011 8:55:45 PM





Instrument ID: CP09-K3593B Injected On: 6/10/2011 8:55:45 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume inj: ì

Detector A Parameters:

Threshold: 4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: 4

Width: 0.1

Area Reject: 100 Quantiation: Height

Calibration Type: External

.

Dilution Factor: 1

Sample Weight: 1 Analyst: 1566

Height A

Amount A Compound A

RTB

Height B

Amount B Compound B

2.12

744 115.749 Opex

5.311

378 175.509 Opex

Files:

RT A

Area File: C:\CPWIN\~Dualcha.00A

Area File: C:\CPWIN\~Dualchb.00A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

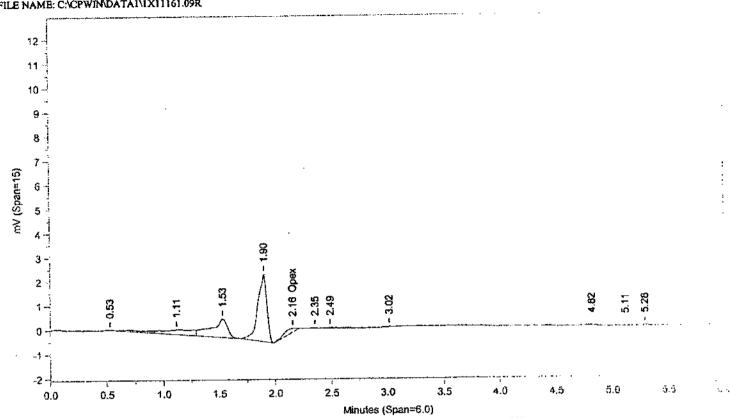
Calibration File A: C:\CPWIN\DATA1\IX11161B.CAL

Calibration File B: C:\CPWIN\DATA1\IX11161B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA

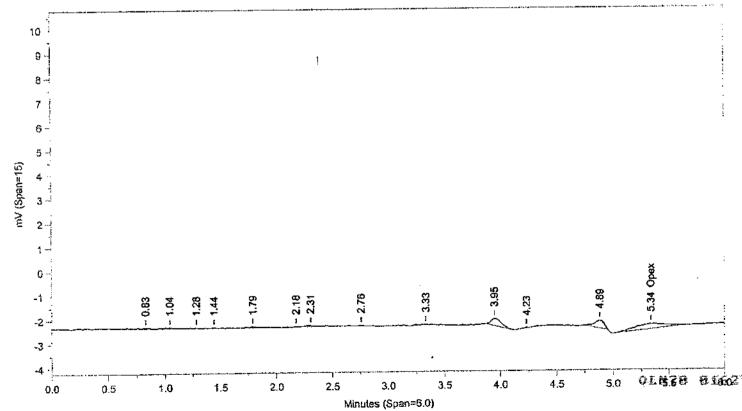
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:51:02 PM
File Reported On: 6/14/2011 at 6:51:02 PM

FILE NAME: C:\CPWIN\DATA1\1X11161.09R



Instrument ID: CP09-K3593A Injected On: 6/10/2011 9:02:37 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09-K3593B Injected On: 6/10/2011 9:02:37 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantiation: Height

Calibration Type: External

Dilution Factor: 1

Sample Weight: 1 Analyst: 1566

RTA Height A Amount A Compound A

RTB

Height B

Amount B Compound B

2.156

154 -29.234 Opex 5.336

212

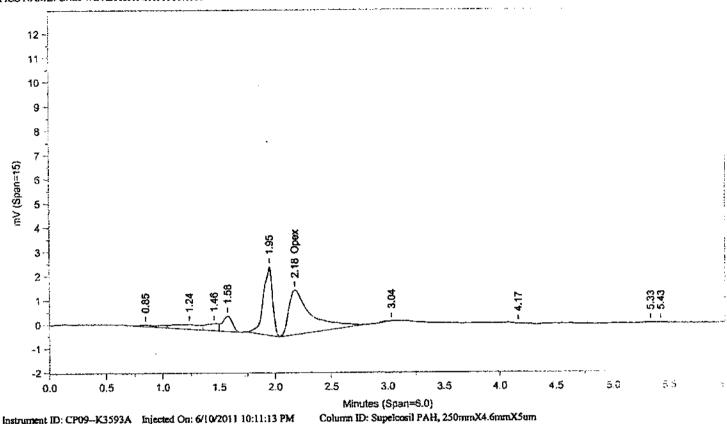
7.276 Opex

Files:

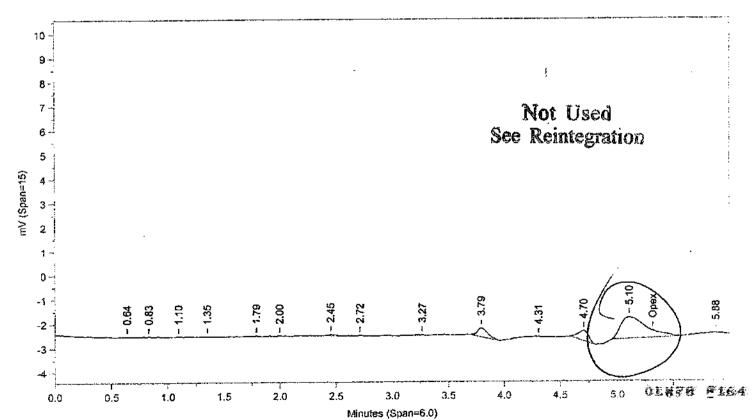
Area File: C:\CPWIN\DATA1\1X11161.09A Area File: C:\CPWIN\DATAI\\IX11161B.09A Method A: C:\CPWIN\DATA1\OPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET Calibration File A: C:\CPWIN\DATA1\IX11161.CAL Calibration File B: C:\CPWIN\DATAI\IX11161B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/14/2011 6:53:22 PM File Reported On: 6/14/2011 at 6:53:30 PM

FILE NAME: C:YCPWIN\DATA!\IX11161.19R



Instrument ID: CP09-K3593A Injected On: 6/10/2011 10:11:13 PM



Instrument ID: CP09--K3593B Injected On: 6/10/2011 10:11:13 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantitation: Height

Calibration Type: External Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantiation: Height

Calibration Type: External

Height A

Dilution Factor: 1

Sample Weight: 1

Analyst: 1566

Height B

RTB

Amount B Compound B

2.18

1856

388.854 Opex

Amount A Compound A

. Opex

Files:

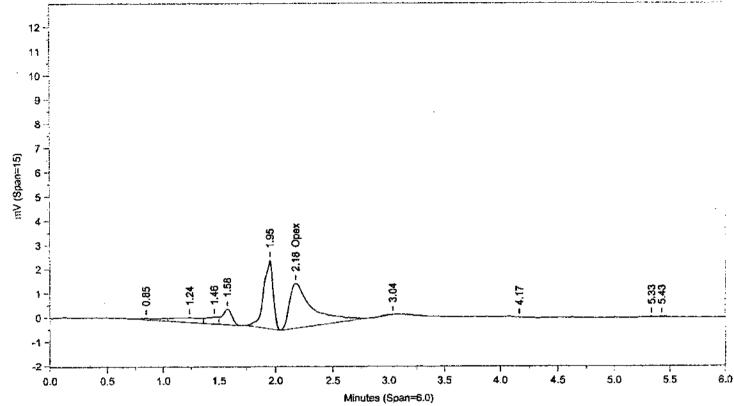
RT A

Area File: C:\CPWIN\DATA1\1X11161.19A Area File: C:\CPWIN\DATA1\1X11161B.19A Method A: C:\CPWIN\DATA1\OPEX.MET Method B: C:\CPWIN\DATAI\OPEXB.MET Calibration File A: C:\CPWIN\DATA1\1X11161.CAL Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA!\OPEXD.FMTB Area File Created On: 6/14/2011 6:56:42 PM File Reported On: 6/14/2011 at 6:56:51 PM

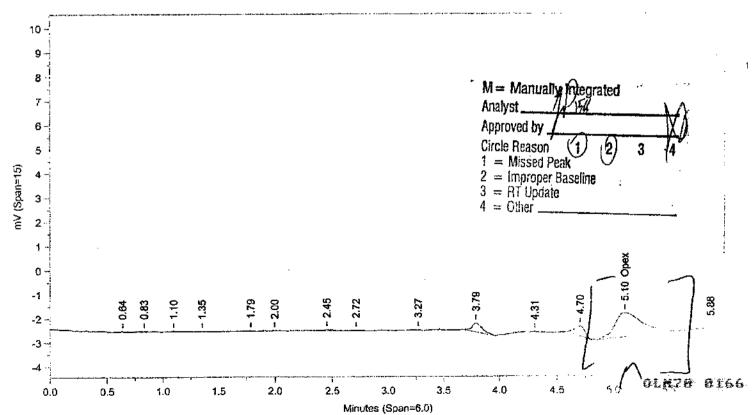
Not Used See Reintegration





Instrument ID: CP09--K3593A Injected On: 6/10/2011 10:11:13 PM

Column ID: Supelcosii PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 10:11:13 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume înj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Sample Weight: 1

Analyst: 1566

Threshold: -4

Dilution Factor: 1

RT A Height A

Amount A Compound A

RTB

Height B

Amount 8 Compound B

2.18

1856

388.854 Opex

5.102

1003

435.977 Opex

Files:

Area File: C:\CPWIN\-Dualcha.00A Area File: C:\CPWIN-Dualchb.00A

Method A: C:\CPWIN\DATA1\OPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET

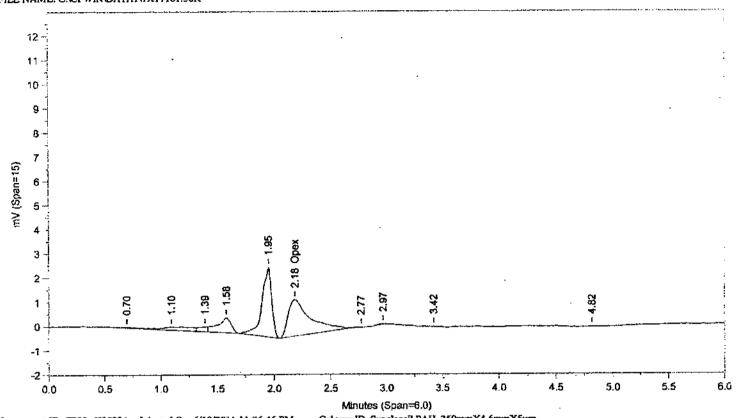
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL

Calibration File B: CACPWIN\DATA1\1X11161B.CAL Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/14/2011 7:06:06 PM

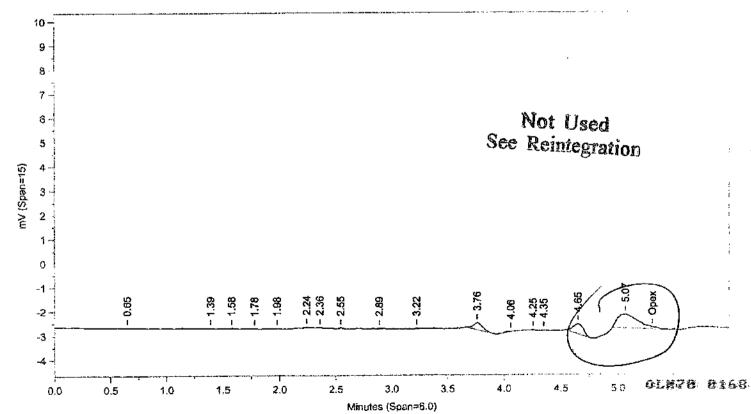
File Reported On: 6/14/2011 at 7:06:04 PM

FILE NAME: C:\CPWIN\DATA\\IX\\1161.30R



Instrument ID: CP09-K3593A Injected On: 6/10/2011 11:26:46 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 11:26:46 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantiation: Height

Sample Weight: 1

Analyst: 1566

Dilution Factor: I

.....

Height A

Amount A Compound A

RTB

Height B

Amount B Compound B

2.184

1497

300.555 Opex

0

. Орех

Files:

RT A

Area File: C:\CPWIN\DATAI\IX11161.30A
Area File: C:\CPWIN\DATAI\IX11161B.30A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATAI\OPEXB.MET

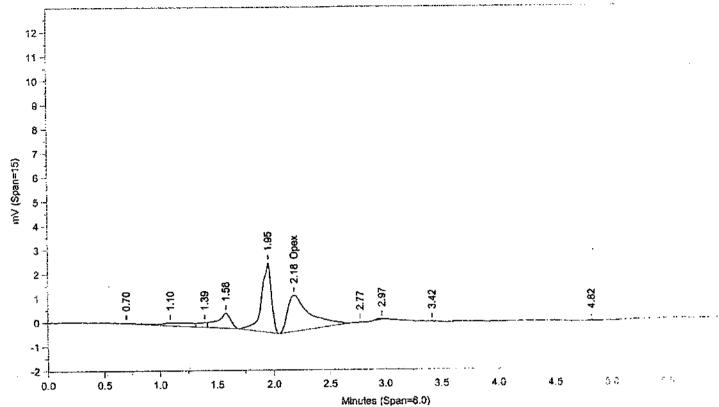
Calibration File A: C:\CPWIN\DATA\\XII161.CAL
Calibration File B: C:\CPWIN\DATA\\XII161B.CAL

Format A: C:\CPWIN\DATAI\CPEXD.FMTA
Format B: C:\CPWIN\DATAI\CPEXD.FMTB

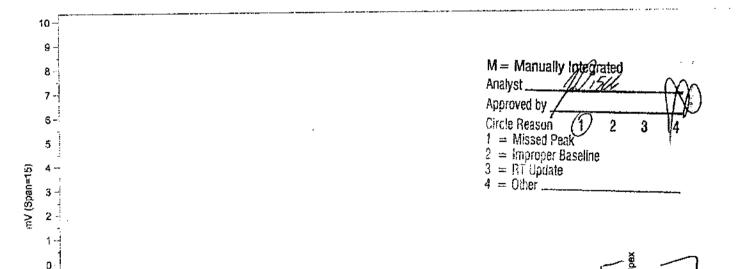
Area File Created On: 6/14/2011 7:00:22 PM File Reported On: 6/14/2011 at 7:00:31 PM

Not Used See Reintegration





Instrument ID: CP09-K3593A Injected On: 6/10/2011 11:26:46 PM



2.5

2.0

Instrument ID: CP09-K3593B Injected On: 6/10/2011 11:26:46 PM

1.0

1.5

0.65

0.5

-2 -3

0.0

Minutes (Span=6.0) Column ID: Capcell CN, 250mmX4.6mmX5um

3.0

3.5

4.06

4.0

5.07

5.0

4.5

011636 6176

Column ID: Supelcosil PAH, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Calibration Type: External

Width: 0.1

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: 4

Width: 0.1

Area Reject: 100 Quantiation: Height

Calibration Type: External

Dilution Factor: 1

Sample Weight: I Analyst: 1566

RTA Height A

Amount A Compound A

RT B

Height B

Amount B Compound B

2.184

1497

300.555 Opex

5.07

847 351.559 Opex

Files:

Area File: C:\CPWIN\--Dualcha.00A Area File: C:\CPWIN\-Dualchb.00A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA\\IX11161.CAL Calibration File B: C:\CPWIN\DATAI\IXI1161B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATAI\OPEXD.FMTB Area File Created On: 6/14/2011 7:09:08 PM File Reported On: 6/14/2011 at 7:09:07 PM

Lancaster Laboratories

= CHROM PERFECT SEQUENCE FILE =

Sequence File: \\cp9\C-Drive\CPWIN\data1\1X11168.seq Chromatography Directory: \\cp9\C-Drive\CPWIN\data1

Method Directory: \cp9\C-Drive\CPWIN\data1

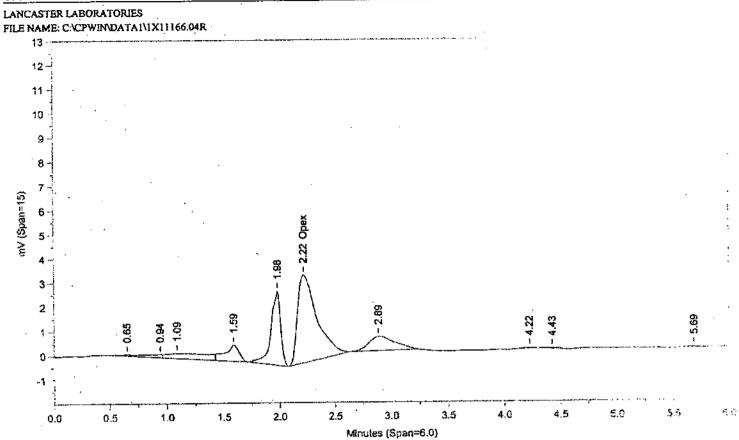
Number of Entries: 22

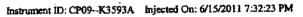
	Samplename	Code	ID	FileName	Method		Samp Amt	DF	Int Std	Ç	Batch Number	<u>Analysis</u>
1	CONDITIONER	MISC	ĀĀ	1X11166.01R		OPEX.MET	г 1	1	1	0	1116599999	
2	CONDITIONER	MISC	AΑ	1X11166.02R		OPEX.ME	r 1	1	1	0	1116599999	
. з	CONDITIONER	MISC	AA	1X11166.03R		OPEX.ME	Γ 1	1	1	0	1116599999	
(4)	OPEX51124C	ICAL	AΑ	1X11166.04R		OPEX.ME	г 1	1	1	5	1116599999	
73	OPEX41124C	ICAL	AΑ	1X11166.05R		OPEX.ME	Г 1	1	1	4	1116599999	
100	OPEX31124C	IÇAL	АΑ	1X11166.06R		OPEX.ME	г 1	1	1	3	1116599999	
17	OPEX21124C	ICAL	AA	1X11166.07R		OPEX.ME	F 1	1	1	2	1116599999	
(8	OPEX11124C	ICAL	AA	1X11166.08Ft		OPEX.ME	r 1	1	1	1	1116599999	
(<u>)</u>	MDOXX1124C	ICAL	AA	1X11166.09R		OPEX.ME	г 1	1	1	0	1116599999	
49	6308075 RI	Т	AA	1X11166.10R		OPEX.ME	r 10	10	1	0	111610022A	02726
ďΥ	6308076 RI	Т	AΑ	1X11166.11R		OPEX.ME	10	10	1	0	111610022A	02726
Y_2	6309550 RI	T	AA	1X11166.12R		OPEX.ME	r 10	10	. 1	0	111610022A	02726
13	6309553 RI	Т	AA	1X11166.13R		OPEX.ME	r 10	10	1	0	111610022A	02726
14	6309554 RI	T	AΑ	1X11166.14R		OPEX.ME	Ţ 10	10	1	C	111610022A	02726
	.6309555 RI	T	AA	1X11166.15R		OPEX.ME	T 10	10	1	0	111610022A	02726
	6310720 RI	T	AA	1X11166.16FI		OPEX.ME	т 10	10	1	0	111610022A	02726
17	6310721 RI	T	AΑ	1X11166.17A.		OPEX.ME	T 10	10	1	0	111610022A	02726
18	6310722 RI	T	AA	1X11166.18FI		OPEX.ME	T 10	10	1	0	111610022A	02726
/19	6310723 RI	T	AA	1X11166.19 7 1		OPEX.ME	T 10 ·	10	1	0	111610022A	02726
, ,	OPEX31124C	CCAL	DΖ	1X11166.20R		OPEX.ME	T 1	1	1	0	1116599999	
	6310724 RI	T	AA	1X11166.21R		OPEX.ME	T 10	10	1	0	111610022A	02726
	OPEX31124C	CCAL.	EΑ	1X11166.22R		OPEX.ME	T 1	1	1	0	1116599999	

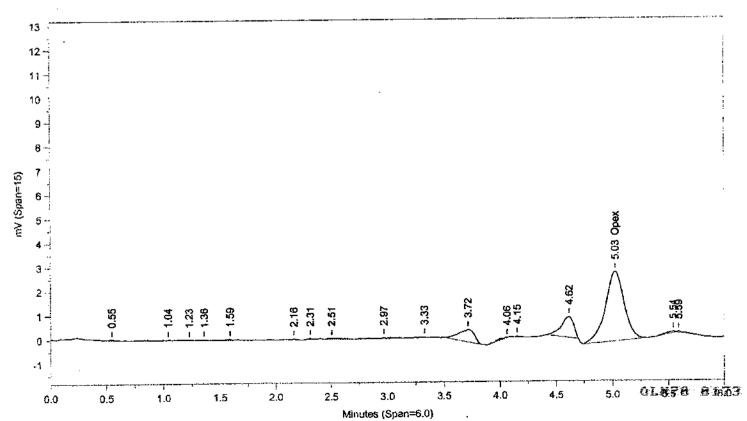
OLN78 8172

Set-up by:

_ Date: <u>6/15/11</u>____







Instrument ID: CP09--K3593B Injected On: 6/15/2011 7:32:23 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Column ID: Supelcosil PAH, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Calibration Type: External

Width: 0.1

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: 4

Width: 0.1

Area Reject: 100 Quantiation: Height

Calibration Type: External

Height A

Dilution Factor: I

Sample Weight: I Analyst: 1566

Amount A Compound A

RT B

Height B

Amount B Compound B

2.216

1116.962 Opex 3622

5.025

2879 -3270.683 Opex

Files:

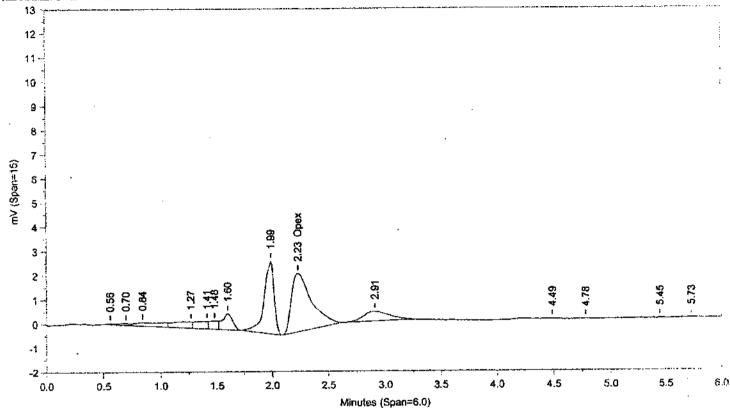
RT A

Area File: C:\CPWIN\DATA1\1X11166.04A Area File: C:\CPWIN\DATA1\1X11166B.04A Method A: C:\CPWIN\DATA1\OPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET Calibration File A: C:\CPWIN\DATA1\IX11166.CAL Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/16/2011 8:51:24 PM File Reported On: 6/16/2011 at 8:51:36 PM

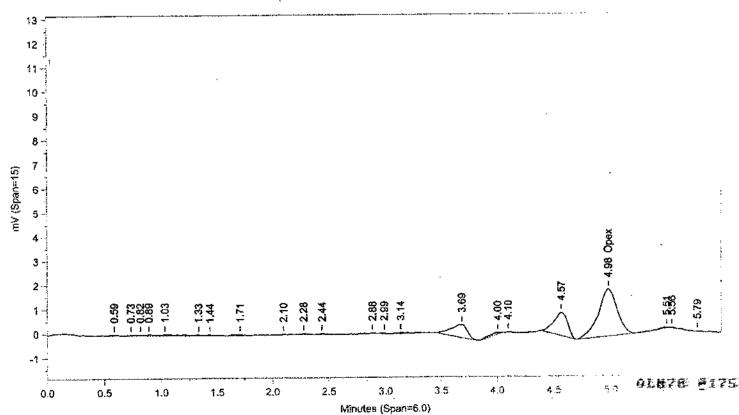






Instrument ID: CP09--K3593A Injected On: 6/15/2011 7:39:15 PM

Cohema ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 7:39:15 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

.

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Dilution Factor: 1

Sample Weight: 1

Analyst: 1566

Height A

Amount A Compound A

RT B

Height B

Amount B Compound B

2.231

2418

677.713 Opex

4.98

1937 1026.663 Opex

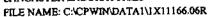
Files:

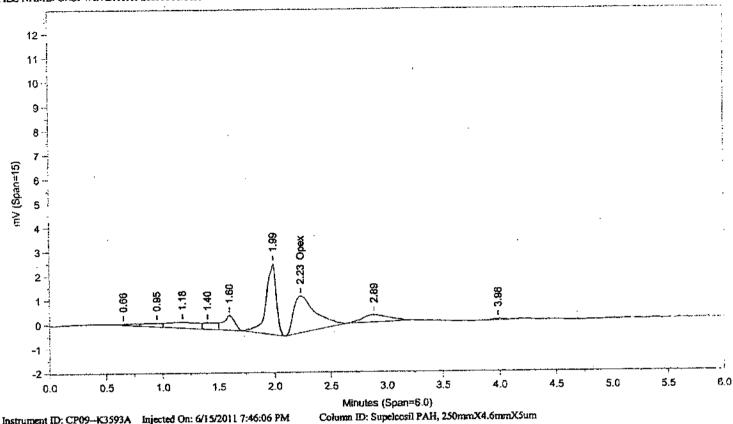
RT A

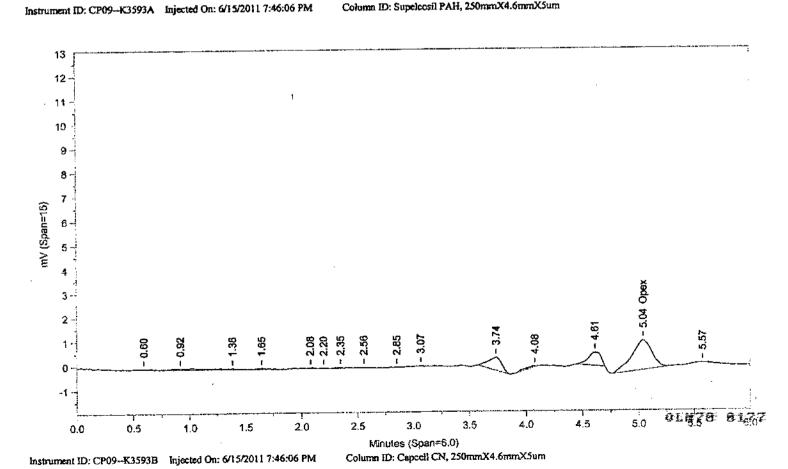
Area File: C:\CPWIN\DATA\\X11166.05A
Area File: C:\CPWIN\DATA\\X11166B.05A
Method A: C:\CPWIN\DATA\\OPEX.MET
Method B: C:\CPWIN\DATA\\OPEXB.MET

Calibration File A: C:\CPWIN\DATA1\1X11166.CAL
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:51:50 PM
File Reported On: 6/16/2011 at 8:52:01 PM







Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: 4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantitation: Height

Sample Weight: 1 Analyst: 1566

Dilution Factor: 1

RT A Height A

Height A Amo

Amount A Compound A

RTB

Height B

Amount B Compound B

2.23

1515

348.413 Opex

5.04

1215

464.382 Opex

Files:

Area File: C:\CPWIN\DATA1\1X11166.06A

Area File: C:\CPWIN\DATA1\1X11166B.06A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATAI\IX11166.CAL

Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL

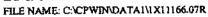
Format A: C:\CPWIN\DATA1\OPEXD.FMTA

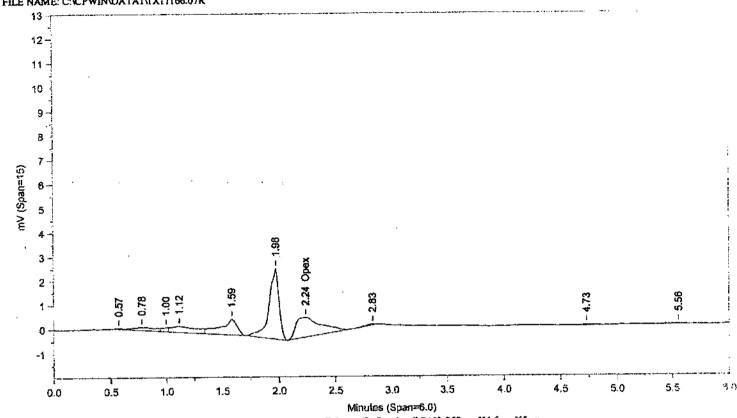
Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/16/2011 8:52:14 PM

File Reported On: 6/16/2011 at 8:52:26 PM

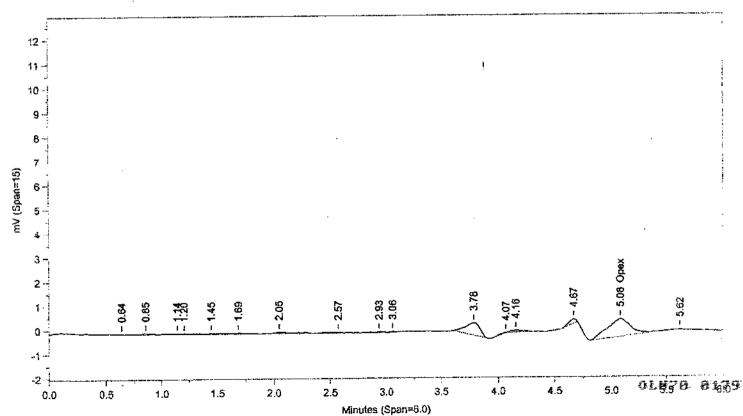






Instrument ID: CP09-K3593A Injected On: 6/15/2011 7:52:58 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09-K3593B Injected On: 6/15/2011 7:52:58 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: 4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100

Quantiation: Height

Sample Weight: 1

Analyst: 1566

Dilution Factor: 1

RT A Height A Amount A Compound A

RT B Height B Amount B Compound B

2.238

808

137.774 Opex

5.081

730 256.523 Opex

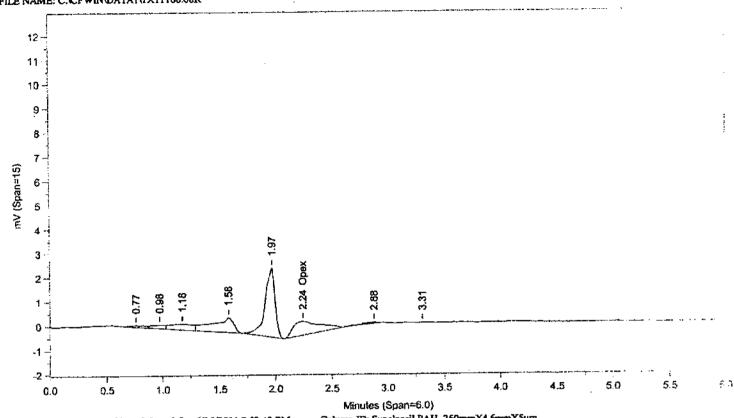
Files:

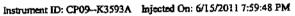
Area File: C:\CPWIN\DATAI\IX11166.07A Area File: C:\CPWIN\DATA1\1X11166B.07A Method A: CACPWINADATATAOPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: CACPWINADATAI\IXI1166.CAL Calibration File B: C:\CPWIN\DATA\\1X11166B.CAL

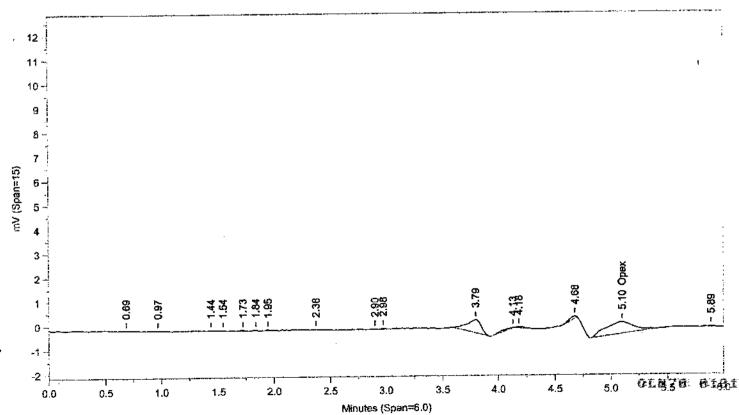
Format A: C:\CPWIN\DATA\\OPEXD.FMTA Format B: C:\CPWIN\DATAI\OPEXD.FMTB Area File Created On: 6/16/2011 8:52:40 PM File Reported On: 6/16/2011 at 8:52:50 PM

FILE NAME: C:\CPWIN\DATA1\1X11166.08R





Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09-K3593B Injected On: 6/15/2011 7:59:48 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: I

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantiztion: Height

Calibration Type: External

Sample Weight: 1

Analyst: 1566

Dilution Factor: 1

Amount A Compound A RT A Height A

RTB

Height B

Amount B Compound B

2.243

565 103.219 Opex 5.102

482 141.647 Opex

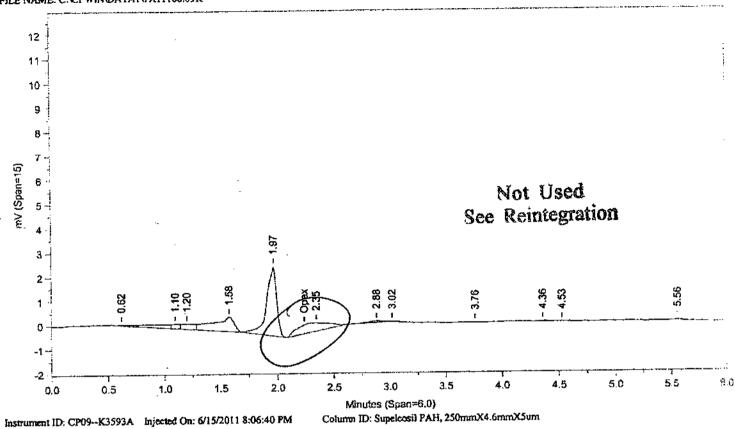
Files:

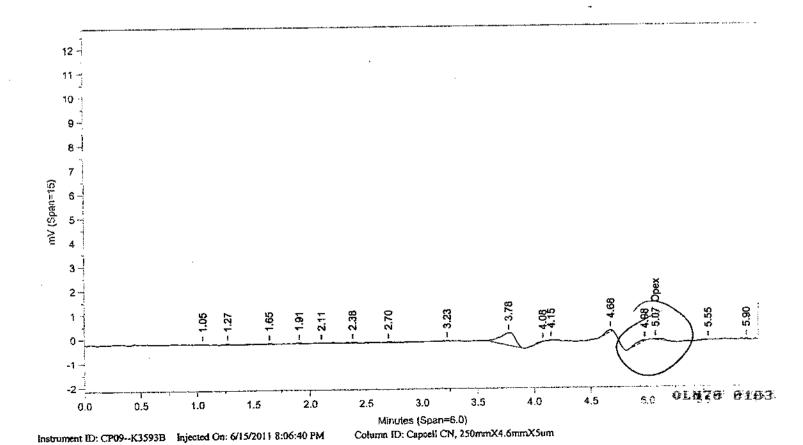
Area File: C:\CPWIN\DATA1\1X11166.08A Area File: C:\CPWIN\DATA1\1X11166B.08A Method A: C:\CPWIN\DATAI\OPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET Calibration File A: C:\CPWIN\DATA1\1X11166.CAL Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: CACPWINDATA1/OPEXD.FMTB Area File Created On: 6/16/2011 8:53:04 PM

File Reported On: 6/16/2011 at 8:53:15 PM

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATAI\IXI1166.09R





Volume Inj: i

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantiation: Height

Dilution Factor: 1

Calibration Type: External

Calibration Type: External

Sample Weight: 1 Analyst: 1566

Height A

Amount A Compound A

RT B

Height B

Amount B Compound B

5.071

-61.24 Opex

. Opex

Files:

RT A

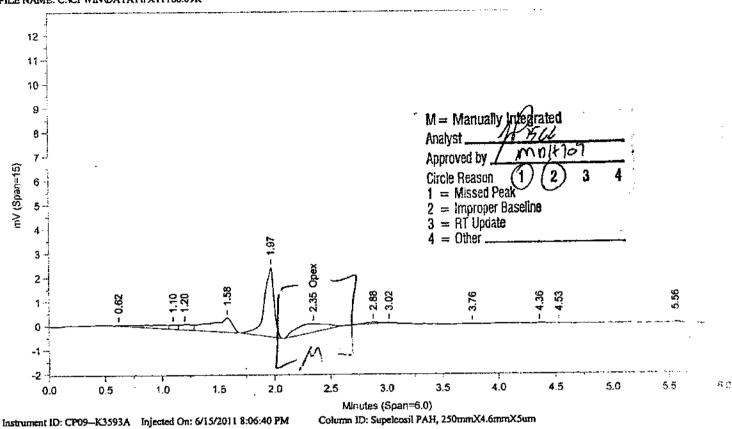
Area File: C:\CPW!N\DATA1\1X11166.09A Area File: C:\CPWIN\DATA1\1X11166B.09A Method A: C:\CPWIN\DATA1\OPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET Calibration File A: C:\CPWIN\DATA1\IX11166.CAL

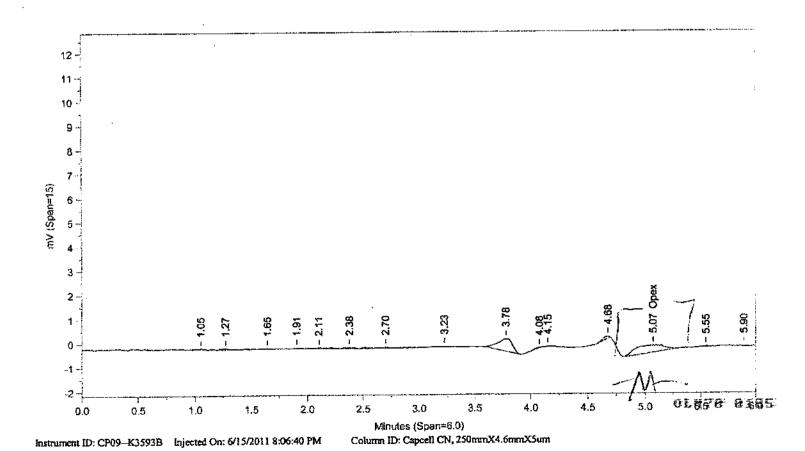
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:VCPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/16/2011 8:54:42 PM File Reported On: 6/16/2011 at 8:54:52 PM

> Not Used See Reintegration

FILE NAME: C:\CPWIN\DATA1\1X11166.09R





Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantitation: Height

Calibration Type: External Sample Weight: 1

Analyst: 1566

Dilution Factor: 1

RT A Height A

Amount A Compound A

RTB

Height B

Amount B Compound B

2.347

350

60.782 Opex

5.071

295

44.489 Opex

Files:

Area File: C:\CPWIN\-Dualcha.00A

Area File: C:\CPWIN\~Dualchb.00A

Method A: C:\CPWIN\DATA!\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA1\1X11166.CAL

Calibration File B: CACPWINDATAI\IX11166B.CAL

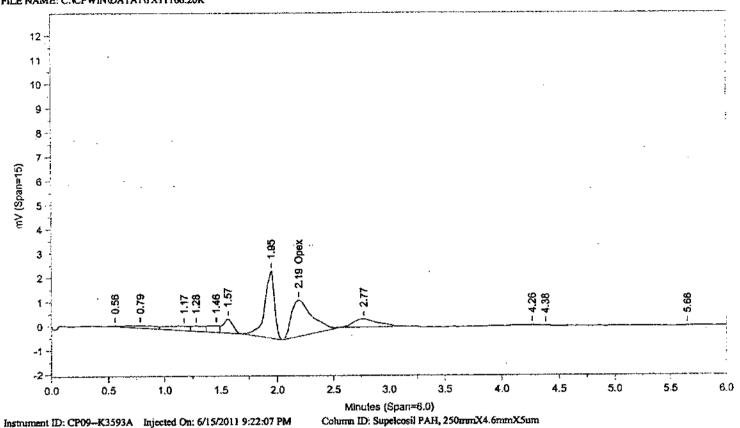
Format A: C:\CPWIN\DATA1\OPEXD.FMTA

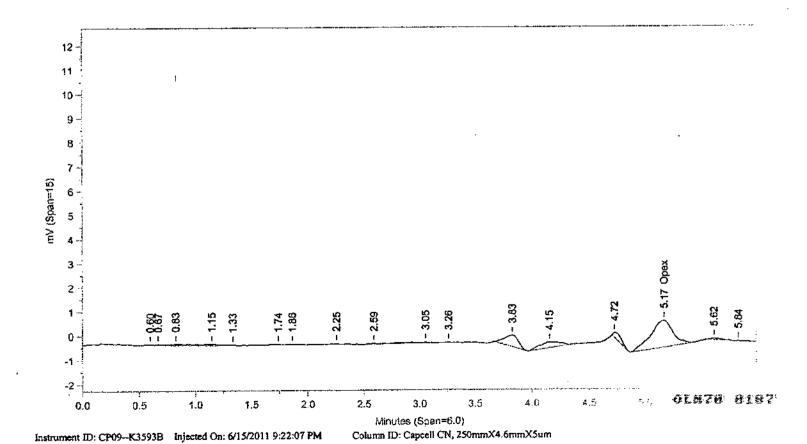
Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/16/2011 9:02:26 PM

File Reported On: 6/16/2011 at 9:02:24 PM

FILE NAME: C:\CPWIN\DATA\\IXI1166.20R





Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: 4

Width: 0.1

Calibration Type: External

Area Reject: 100 Quantiation: Height

Height A

Sample Weight: I Analyst: 1566

Height B

Amount B Compound B

2.194

1495

431.185 Opex

Amount A Compound A

5.171

Dilution Factor: 1

RTB

1093

377.313 Opex

Files:

RT A

Area File: C:\CPWIN\DATA1\!X11166.20A Area File: C:\CPWIN\DATA1\1X11166B.20A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA1\1X11166.CAL

Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA

Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/16/2011 8:58:26 PM

File Reported On: 6/16/2011 at 8:58:35 PM

Raw QC Data

1D

SAMPLE CODE NO.

ORGANICS ANALYSIS DATA SHEET

PBLK22161

Lab Name: Lançaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) WATER

Lab Sample ID: BLANKA

Sample wt/vol:

10 (g/ml) ml

Lab File ID: 1X11161.10R

Date Received:

% Moisture:

Decanted: (Y/N)

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 6/10/2011

Concentrated Extract Volume:

10000 (uL)

Date Analyzed: 6/10/2011

Injection Volume:

30 (uL)

pH:

Dilution Factor: 1

GPC Cleanup: (Y/N) N

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/t

Q

101-25-7

Opex

20¦U

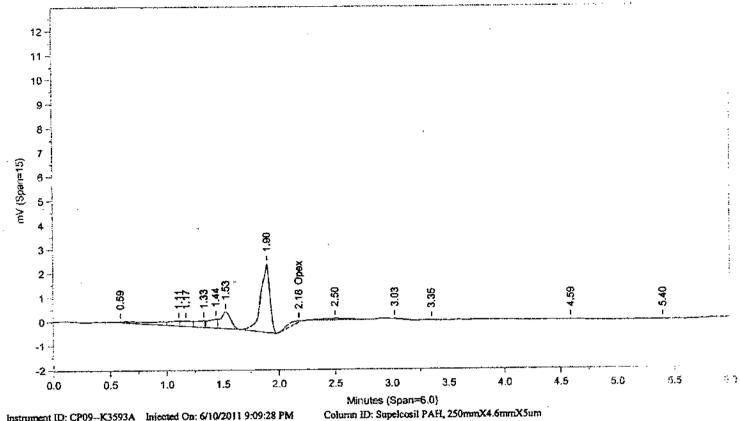
Lancaster Laboratories-Single Component Data Summary

Batchnumber: 111610022A PBLK22161Sample ID: AA Sample Name: BLANKA 6/10/11 State: Analyst: 1566 SDG: Total Volume: 10 lm Sample Amount: 10 ml Analyses: 02726 10342 Analysis Report (B) Analysis Report (A) Injected on JUN 10, 2011 21:09:29 Injected on JUN 10, 2011 21:09:29 instrument CP09-K35938 Instrument CP09-K3593A Result file 1X11161B.10R : 1X11161.10R Result file Calibration file 1X11161B.CAL Calibration file : 1X11161.CAL Method file : OPEXB.MET Method file : OPEX.MET Amount Amount Peak name <u>Min</u> <u>R.T.</u> Max <u>Height</u> <u>R.T.</u> Peak name <u>Min</u> <u>Max</u> <u>Height</u> 5.21 5.30 5.41 35 -88.792419 2.02 2.18 45 -56.032379 Opex Opex **Summary Report** %Difference Comments MDL Qualifiers Amount Found LQQ Compound Name Column <100 <20 Opex Units: ug/l Verified by: Reviewed by: JUN 1 6 2011 Date: Date:

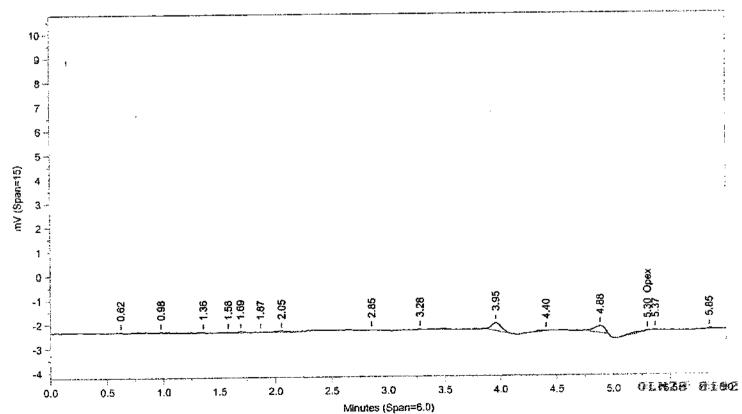
> Valerie Tomayko Senior Specialist

LANCASTER LABORATORIES





Instrument ID: CP09-K3593A Injected On: 6/10/2011 9:09:28 PM



Instrument ID: CP09--K3593B Injected On: 6/10/2011 9:09:28 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100 Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Calibration Type: External

Quantiation: Height

Sample Weight: 10

Analyst: 1566

Dilution Factor: 10

RT A Height A Amount A Compound A RTB

Height B

Amount B Compound B

2.176

-56.032 Opex

5.298

35 -88.792 Opex

Files:

Area File: C:\CPWIN\DATAI\1X11161.10A Area File: C:\CPWIN\DATA1\1X11161B.16A Method A: C:\CPWIN\DATA1\OPEX.MET Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA1\1X11161.CAL Calibration File B: C:\CPWIN\DATAI\IX11161B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/14/2011 6:53:42 PM File Reported On: 6/14/2011 at 6:53:50 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

CS22161

Lab Name: Lançaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) WATER

Sample wt/vol:

Lab Sample ID: LCSA

10 (g/ml) ml

Lab File ID: 1X11161.11R

% Moisture:

Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection

Date Extracted: 6/10/2011

Concentrated Extract Volume:

10000 (uL)

Date Analyzed: 6/10/2011

Injection Volume:

Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 101-25-7 COMPOUND

Opex

(UG/L or UG/KG) ug/l

Q 690

Lancaster Laboratories-Single Component Data Summany

Batchnumber: 111610022A LCS22161 Sample ID: AA LCSA 6/10/11 Sample Name: SDG: State: Total Volume: 10 ml Analyst: 1566 ml Sample Amount: 10 Analyses: 02726 10342 Analysis Report (B) Analysis Report (A) Injected on Instrument JUN 10, 2011 21:16:20 CP09--K3593A JUN 10, 2011 21:16:20 CP09-K3593B Injected on Instrument Result file 1X11161B.11R Result file 1X11161.11R Calibration file 1X111618.CAL Calibration file : 1X11161.CAL Method file OPEXB.MET Method file : OPEX.MET %SSR(Opex) %SSR(Opex) Min <u>R.T.</u> Max **Height Amount** Peak name <u>Min</u> <u>R.T.</u> <u>Max</u> Height <u>Amount</u> Peak name 2.22 5.32 5.41 690.061340 686.423096 2.02 2.11 3067 Opex

<20

Summary Report LOQ MDL Qualifiers %Difference Comments Amount Found Compound Name Column

✓ Opex <100 Units: ug/l

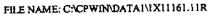
Opex

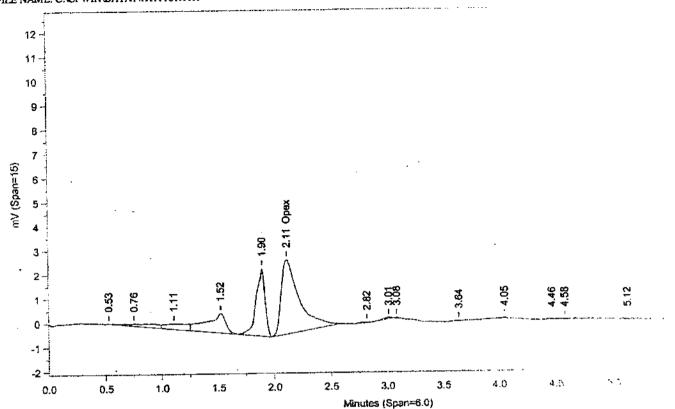
Reviewed by: Date:

Verified by: _ <u> 100 6 1 MUL</u> Date:

> Valerie Tomayko Senior Specialist

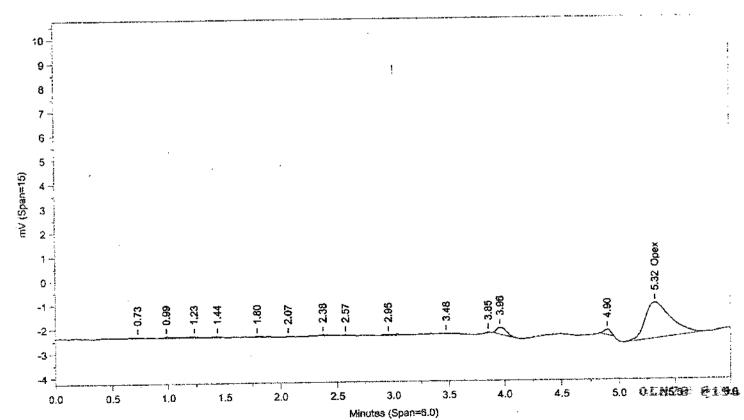
LANCASTER LABORATORIES





Instrument ID: CP09-K3593A Injected On: 6/10/2011 9:16:19 PM

Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09-K3593B Injected On: 6/10/2011 9:16:19 PM

Column ID: Capcell CN, 250mmX4.6mmX5um

Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantiztion: Height

Sample Weight: 10

Dilution Factor: 10

Analyst: 1566

Height A

Amount A Compound A

RTB Height B Amount B Compound B

2.114

3067

686.423 Opex

5.323

1472 690.061 Opex

Files:

RT A

Area File: C:\CPWIN\DATA1\1X11161.11A Area File: C:\CPWIN\DATA1\1X11161B.11A Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATAI\IX11161.CAL Calibration File B: C:\CPWIN\DATA1\\X11161B.CAL

Format A: C:\CPWIN\DATA1\OPEXD.FMTA Format B: C:\CPWIN\DATA1\OPEXD.FMTB Area File Created On: 6/14/2011 6:54:02 PM File Reported On: 6/14/2011 at 6:54:11 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

LCSD22161

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 111610022A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) WATER

Sample wt/vol:

10 (g/ml) ml

Lab Sample ID: LCSDA Lab File ID: 1X11161.12R

% Moisture:

Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) Direct Injection Concentrated Extract Volume:

Date Extracted: 6/10/2011

10000 (uL)

Date Analyzed: 6/10/2011

Injection Volume:

30 (uL)

Dilution Factor: 1

GPC Cleanup: (Y/N) N

:Hq

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO. 101-25-7 COMPOUND

(UG/L or UG/KG) ug/i

Q 690

Opex

OLN78 8198

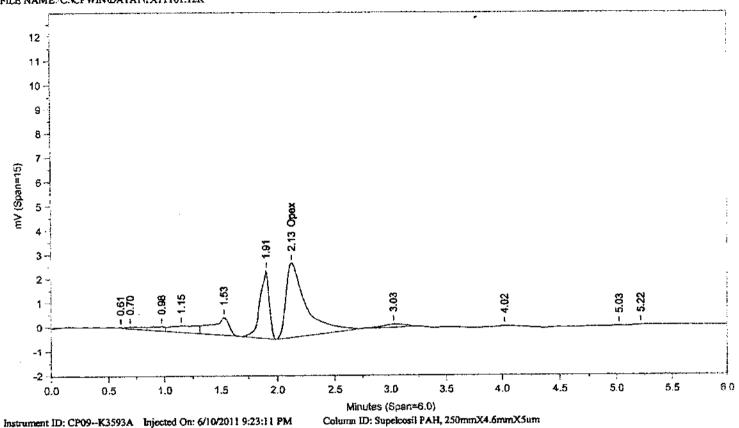
Lancaster Laboratories-Single Component Data Summary

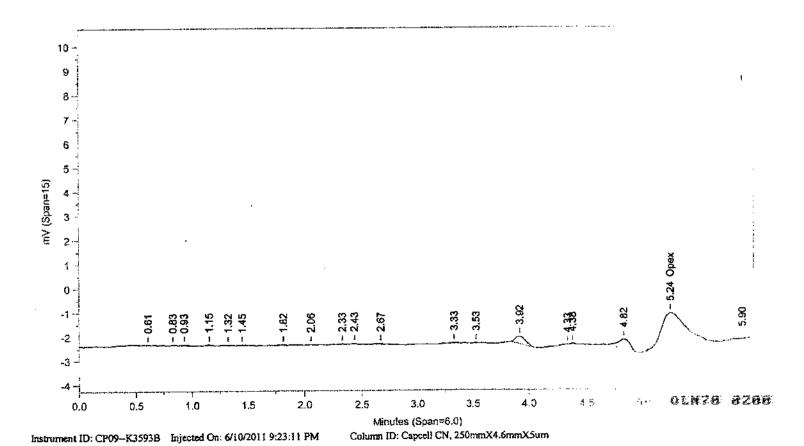
Batchnumber: 111610022A 6/10/11 LCSD22161Sample ID: AA Sample Name: LCSDA Analyst: 1566 SDG: State: Total Volume: 10 ml Sample Amount: 10 lm Analyses: 02726 10342 Analysis Report (B) Analysis Report (A) JUN 10, 2011 21:23:12 CP09-K3593A injected on JUN 10, 2011 21:23:12 Injected on CP09-K3593B Instrument Instrument Result file 1X11161B.12R Result file 1X11161.12R Calibration file : 1X11161B.CAL Calibration file : 1X11161.CAL Method file : OPEXB.MET Method file : OPEX.MET %SSR(Opex) %SSR(Opex) R.T. Max Amount Min <u>R.T.</u> Max <u>Height</u> **Amount** Peak name <u>Heloht</u> Peak name 5.24 5.41 1476 692.493103 692,608765 2.22 Opex 2.02 2.13 3092 Opex Summary Report %Difference Comments LQQ MDL Qualifiers Amount Found Compound Name Column <100 <20 ✓ Opex Units: ug/l Verified by: _ Reviewed by: JUN 1 6 2011 Date: Date: Valerie Tomayko Senior Specialist

Printed on: 6/14/11 19:22:08

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1X11161.12R





Volume Inj: 1

Detector A Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantitation: Height

Detector B Parameters:

Threshold: -4

Width: 0.1

Area Reject: 100

Calibration Type: External

Quantiation: Height

Sample Weight: 10

Dilution Factor: 10

Analyst: 1566

RT A Height A Amount A Compound A

RTB

Height B

Amount B Compound B

2.126

3092

692.609 Opex

5.243

1476

692.493 Opex

Files:

Area File: C:\CPWIN\DATA1\1X11161.12A

Area File: C:\CPWIN\DATA1\!X11161B.12A

Method A: C:\CPWIN\DATA1\OPEX.MET

Method B: C:\CPWIN\DATA1\OPEXB.MET

Calibration File A: C:\CPWIN\DATA1\1X11161.CAL

Calibration File B: C:\CPWIN\DATA1\IX11161B.CAL

Format A: C:\CPWIN\DATAI\OPEXD.FMTA

Format B: C:\CPWIN\DATA1\OPEXD.FMTB

Area File Created On: 6/14/2011 6:54:22 PM

File Reported On: 6/14/2011 at 6:54:31 PM

Extraction/Distillation/Digestion Logs

Organic Extraction Batchiog Assigned to: 1566 James Place

111610022A

Reviewed by:

Start Date: 6/10/

Start lime: Fillan

Tech 2:

Tech 1:

Comments TXA Velbuish 8 표 Opex in Water 팚 Amt FV (mL.) (mL.) € Ü 0 0 57.1143.24B STITILITY OF B MS Sol. (mr) SS/IS Sol. Sample Amt Code (ML) ð Prep Analysis: 00000 뎌 CSD22161 PBLK22161 CS22161 ISC1-6308057MSD 3308056MS Dept: 24 BLANKA **LCSDA** ဗ္ပ CSA

5771114324B-Gex Stock

Prio	۵	<u>a</u>	<u>a.</u>	а.	a.	_	_	۵.	a_	۵.	Д.	_	Д	۵.	۵
Due Date	06/17/2011	06/17/2011	06/17/2011	06/17/2011	06/17/2011	06/17/2011	06/20/2011	06/20/2011	06/20/2011	06/20/2011	06/21/2011	06/21/2011	06/21/2011	06/21/2011	06/21/2011
Analyses	02726	02726	02726	02726	02726	02726	02726	02728	02726	02726	02726	02726	02726	02726	02726
Comments	Vellouish	Vellamsk		Gangish Scoliment	£		Vellaush Wsediment	Orange sediment						mark the second	
ည္ထ	1384	_				_		_)
PH	8h16	0£'b	27,6	9.73	9/12	9.30	686	176	9.59	876	596	17.6	9,75	9.58	7.87
Нd	(57)	797	88.7	615	2:10	30'2	70%	ħ8'S	4.48	6.57	83.7	97/t	7.05	7,19	7.33
)	\mathcal{G}^{1}	9	51	C'	0	l Ot	C^{\parallel}	CI	C/	01	01	c'	0	21	<u>a</u> .
Amt FV (mL) (mL	1														
SS/IS Sol.						/	/	/		/	/	/	_	/	1
Amt	CI	CI	CI	Ω	Q!	0(a	l Ci	01	0	Q/	()	2	0	Ω
Sample Code	ISC1-	ISC1D	ISC2-	PZ16R	PZ17R	-SD-1	2-XXX	1-XXX	2-XXX	S-XXX	EDSD0	EDSD1	EDSD2	EDSDS	MMB-2
Sample #	1 6308055BKG	2 6308058	3 6308059	4 6308074	5 6308075	9,080,09	7 6309550	8 6309553	9 6309554	10 6309555	11 6310720	12 6310721	13 6310722	14 6310723	15 6310724

OLN?

Rack ID: 😐		Work Station		S-bath ID		C S-bath ID	
Internal Standard		Balance #		Documented t	emps are	Documented temps are NIST corrected.	<u> </u>
DF = Dilution Factor FV = Final Volume	FV = Final Volu	me	Page 1 of 1				

111610022A

O

C M-vap

C N-Evap

Hydrazines by LC/MS/MS

Case Narrative Conformance/Nonconformance Summary



CLIENT: Olin Corporation

SDG: OLN70

Specialty Services Group Fraction: Hydrazines by LC/MS/MS

Hydrazines in Water

		Mat	trix	
Sample #	Client ID	<u>Liquid</u>	<u>Solid</u>	Comments
6308068	OC-SW-MMB-SW/SD-1-XXX	X		Unspiked
6308069	OC-SW-MMB-SW/SD-1-XMS	X		Matrix Spike
6308070	OC-SW-MMB-SW/SD-1-MSD	X		Matrix Spike Duplicate
6308071	OC-SW-MMB-SW/SD-1-DUP	X		Field Duplicate Sample
6308072	OC-SW-MMB-SW/SD-4-XXX	X		
6308073	OC-SW-MMB-SW/SD-9-XXX	X		
6308074	OC-SW-PZ-16RR-XXX	X		
6308075	OC-SW-PZ-17RR-XXX	X		
6308076	OC-SW-SD-1-XXX	\mathbf{X}		

See QC Reference List for Associated Batch QC Samples

SAMPLE PREPARATION:

Samples were derivatized with benzaldehyde prior to analysis.

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

No problems were encountered with the analysis of the samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD results.

DATA INTERPRETATION:

The LCS serves as the ICV second source.

OEM79 8206

6/27/2011 9:48:17 AM Page 1 of 2



CLIENT: Olin Corporation

SDG: OLN70

Specialty Services Group Fraction: Hydrazines by LC/MS/MS

Abbreviation Key

LOQ = Limit of Quantitation
MDL = Method Detection Limit
ND = Not Detected
J = Estimated Value
E= out of calibration range
* = Out of Specification
NF = Not found

Narrative Reviewed and Approved 6/28/// by (Date)

Group Leader

QC Summary



Quality Control Reference List Specialty Services Group

CLIENT: Olin Corporation

SDG: OLN70

6308074

6308075

6308076

Fraction: Hydrazines by LC/MS/MS

Analysis	Batch Number	Sample Number	Analysis Date
Hydrazines in Water	11161001	BLK	06/10/2011 19:28:00
•		LCS	06/10/2011 20:16:00
		LCSD	06/10/2011 20:31:00
		6308068 UNSPK	06/10/2011 20:00:00
		6308069 MS	06/10/2011 20:47:00
		6308070 MSD	06/10/2011 21:03:00
		6308071	06/10/2011 21:50:00
		6308072	06/10/2011 22:06:00
		6308073	06/10/2011 22:21:00

06/10/2011 22:37:00

06/10/2011 22:53:00

06/10/2011 23:09:00



Fraction: Hydrazines by LC/MS/MS

Quality Control Summary Method Blank **Specialty Services Group** SDG: OLN70

Matrix: LIQUID

11161001 / BLK					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Hydrazine	06/10/11	N.D.	ug/l	0.050	0.10
Methylhydrazine	06/10/11	N.D.	ug/l	0.25	0.50
1,1-Dimethylhydrazine	06/10/11	N.D.	ug/l	0.25	0.50



Quality Control Summary Matrix Spike/Matrix Spike Duplicate

SDG: OLN70 Matrix: LIQUID

Specialty Services Group Fraction: Hydrazines by LC/MS/MS

UNSPK: 6308068										
MS: 6308069 MSD: 6308070 Analyte	Spike Added ug/l	Unspiked Conc ug/l	MS Conc ug/l	MSD Cone ug/l	MS %Rec	MSD %Rec	%Rec Limits	%RPD	%RPD Limits	
Hydrazine	12	N.D.	11.89	11.63	99	9 7	70-130	2	25	
Methylhydrazine	60	N.D.	44.38	43.52	74	73	70-130	2	25	
1,1-Dimethylhydrazine	60	N.D.	57.18	55.22	95	92	70-130	3	25	



Quality Control Summary Laboratory Control Standard (LCS) Laboratory Control Standard Duplicate(LCSD)

SDG: OLN70 Matrix: LIQUID

Specialty Services Group Fraction: Hydrazines by LC/MS/MS

LCS	Batch: 111610	01 (Sample nur	nber(s): 630806	8-6308076)			
LCSD	Spike	LCS	LCSD					
	Added	Conc	Conc	LCS	LCSD	%Rec	į	%RPD
Analyte	ug/I	ug/l	ug/l	%Rec	%Rec	Limits	%RPD	Limits
Hydrazine	12	12.04	11.77	100	98	70-130	2	25
Methylhydrazine	60	59.03	60.54	98	101	70-130	3	25
1,1-Dimethylhydrazine	60	62.34	61.52	104	103	70-130	1	25

Sample Data



Fraction: Hydrazines by LC/MS/MS

LOQ/MDL Summary Specialty Services Group

SDG: OLN70

10342: Hydrazines in Water Analyte Name	Default MDL	Default LOQ	Units
Hydrazine	0.050	0.10	ug/l
Methylhydrazine	0.25	0.50	ug/l
1,1-Dimethylhydrazine	0.25	0.50	ug/l



Component Name: Mc

Monomethylhydrazine

Page 1 of 6 Monday, June 13, 2011, 11:17:34

*6*215

ter	tories
≱ Lancast	Laborat
	•

Laboratories	ter tories	SWD'1	SY.TANA SM	TS REPORT				
Sample ID	Data File Name	Area	ISTD Area	Area Ratio S	Area Ratio Specified Amount	Calculated Amount	% Diff	Excluded
6310725	A11161001 38	N/A	N/A	 VA	Y/Z	N/A	A/N	N/A
6310726	A11161001_39	N/A	A/N	Y/N	A/N	N/A	N/A	Y/N
6310727	A11161001 40	N/A	A/N	N/A	N/A	N/A	N/A	N/A
CCV4	A11161001_41	13584290.17	A'N	13584290.166	50	49.51425ug/L	-0.97	N/A

Page 2 of 6 Monday, June 13, 2011, 11:17:34



Component Name:

1,1-Dimethylhydrazine

Sample ID	Data File Name	Атеа	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
conditioner	A11161001 01	N/A	N/A	N/A	N/A	N/A	Y/Z	A/X
conditioner	A11161001_02	N/A	N/A	N/A	N/A	N/A	Y/N	N/A
SYS(MDL)	A11161001_03	19994.21	N/A	19994.208	N/A	0.27917ug/L	N/A	N/A
CAL1	A11161001_04	44641.92	N/A	44641.921	0.5	0.48165ug/L	-3.67	Y/Z
CAL2	A11161001_05	114965.27	Y/V	114965.270	-	1.05935ug/L	5.94	Y/A
CAT3	A11161001_06	300936.96	N/A	300936.963	2.5	2.58711ug/L	3,48	A/N
CAL4	A11161001_07	574908.64	N/A	574908.644	•	4.83779ug/L	-3.24	N/A
CALS	A11161001_08	2922053.79	N/A	2922053.788	25	24.11956ug/L	-3.52	A/Z
CAL6	A11161001_09	6115447.27	Y/Z	6115447.273	20	50.35326ug/L	0.71	Y/Z
CAL7	A11161001_10	12074114.06	A/N	12074114,063	100	99,30366ug/L	-0.70	N/A
CAL8	A11161001_11	15355182.58	Y/N	15355182,581	125	126.25761ug/L	1.01	A/N
Conditioner	A11161001_12	15794.95	Y'X	15794,952	N/A	0.24467ug/L	N/A	V/A
Conditioner	A11161001_13	N/A	N/A	N/A	N/A	V/N	N/A	V/V
BLK (reagent)	A11161001 14	N/A	N/A	Y/X	0	A/N	N/A	N/A
CCVI	A11161001_15	281290.71	N/A	281290.711	2.5	2.42572ug/L	-2.97	V/Z
6308068(BKG)	A11161001_16	N/A	N/A	N/A	N/A	Y/Z	N/A	A/N
ICV/LCS	A11161001_17	7573987.07	N/A	7573987.066	N/A	62.33516ug/L	Y/A	N/A
ICA/FCSD	A11161001_18	7474393.92	N/A	7474393.916	N/A	61.51700ug/L	A/A	Y/X
6308069MS	A11161001_19	6946046.93	N/A	6946046.930	N/A	57.17663ug/L	N/A	Y/Z
6308070MSD	A11161001_20	6708207.99	Y/A	6708207.989	N/A	55.22279ug/L	N/A	Y/A
CCV2	A11161001_21	589400.90	V/A	589400.902	5	4.95684ug/L	-0.86	Y/N
Conditioner	A11161001_22	N/A	N/A	N/A	A/A	N/A	A/X	A/X
6308071	A11161001_23	N/A	N/A	N/A	N/A	A/Z	A/A	N/A
6308072	A11161001_24	N/A	N/A	N'A	N/A	A/N	A/N	A/X
6308073	A11161001_25	N/A	N/A	N/A	A/N	N/A	N/A	Y/N
6308074	A11161001_26	N/A	N/A	N/A	A/A	V/A	N/A	Y/Z
6308075	A11161001_27	N/A	N/A	Y/N	N/A	Y/N	N/A	N/A
6308076	A11161001_28	N/A	Y'N	N/A	N/A	V/A	N/A	A/A
6309549	A11161001_29	N/A	N/A	A/N	N/A	V/V	A/N	N/A
CCV3	A11161001_30	2965073.86	N/A	2965073.856	25	24.47297ug/I.	-2.11	N/A
Conditioner	A11161001_31	N/A	N/A	A/N	N/A	A/N	N/A	V/N
6309550	A11161001_32	N/A	N/A	N/A	N/A	A/N	A/A	N/A
6309551	A11161001_33	N/A	N/A	N/A	N/A	Y/X	Y/A	A/N
6309552	A11161001_34	N/A	A/N	V/N	N/A	Y/X	A/N	N/A
6209553	A11161001_35	N/A	V/N	A/N	N/A	4 /Z	A/N	Y/X
6209554	A11161001_36	N/A	V/A	N/A	A/N	V/V	V/N	V/N
63,0724	A11161001_37	N/A	V/N	N/A	N/A	N/A	V/V	N/A
). !					Page 3 of 6	,		
92	-		-		Monday, June 13, 2011, 11:17:34	, 11:17:34		
17								
E'								

V)
7.7
te
cas
200
लल
V

Laboratories	tories	LCMSI	AS ANALYS!	S REPORT	I			
Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Area Ratio Specified Amount	Calculated Amount	% Diff	Excluded
6310725	A11161001 38	N/A	N/A	V/N	N/A	V/N	N/A	A/N
6310726	A11161001 39	N/A	A/N	V/A	N/A	N/A	Y/Z	Y/N
6310727	A11161001_40	N/A	N/A	A/N	N/A	V/V	N/A	N/A
CCV4	A11161001_41	5860591.47	NA	5860591.466	20.	48.25963ug/L	-3.48	A/A

Page 4 of 6 Monday, June 13, 2011, 11:17:34



Component Name:

Hydrazine

Sample ID	Data File Name	Α του	Summary of Chair Accura	And Mesulis	Specified Amount	Calculated Amount	% Di€	Eveluded
	Cuma I III I I III I	200	nate of the	OHEN PAIC	appearing villaging	Carcalated Chilomic	1	Fusings
conditioner	A11161001_01	N/A	Y/X	Y/X	N/A	A/A	N/A	N/A
conditioner	A11161001_02	Y/N	Y/N	YZ Z	V/V	A/N	N/A	N/A
SYS(MDL.)	A11161001_03	6327.78	Y/N	6327.782	N/A	0.05992ug/L	Y/X	N/A
CAL1	A11161001_04	12083.07	N/A	12083.074	0.1	6.10277ug/L	2.77	N/A
CAL2	A11161001_05	27583.66	N/A	27583.657	0.2	0.21818ug/L	60.6	N/A
CAL3	A11161001_06	61282.56	N/A	61282.560	0.5	0.46908ug/L	-6.18	Ϋ́N
CAL4	A11161001_07	124589.91	N/A	124589.912	-	0.94043ug/l.	-5.96	N/A
CALS	A11161001_08	662784.46	N/A	662784.461	ŧ٥	4.94749ug/L	-1.05	N/A
CAL6	A11161001_09	1367424.96	A/N	1367424,963	10	10.19380ug/L	1.94	N/A
CAL7	A11161001_10	2641166,41	N/A	2641166.406	20	19.67729ug/L	-1.61	N/A
CAL8	A11161001_11	3389775,58	N/A	3389775.575	25	25,25096ug/L	1.00	N/A
Conditioner	A11161001_12	N/A	V/N	A/N	N/A	N/A	N/A	N/A
Conditioner	A11161001_13	N/A	N/A	A/N	N/A	N/A	N/A	N/A
BLK (reagent)	A11161001_14	N/A	N/A	A/N	0	N/A	A/Z	N/A
CCVI	A11161001_15	64481,08	N/A	64481,083	0.5	0.49290ug/L	-1.42	N/A
6308068(BKG)	A11161001_16	N/A	N/A	A/N	A/N	N.A.	Y/N	N/A
ICV/I/CS	A11161001_17	1615910.44	N/A	1615910,437	N/A	12.04387ug/L	N/A	V/N
ICV/LCSD	A11161001_18	1578813.77	N/A	1578813.767	A/N	11.76767ug/L	A/N	N/A
SW69080E9		1594689.95	Y/N	1594689,950	N/A	11.88588ug/L	N/A	N/A
6308070MSD		1560299.39	N/A	1560290,387	N/A	11.62976ug/L	Y/Z	N/A
CCV2	A11161001_21	130730.53	N/A	130730.530	-	0.98615ug/L	-1.39	N/A
Conditioner	A11161001_22	N'A	N/A	N/A	N/A	V/V	Y/A	N/A
6308071		Y/A	N/A	N/A	A/A	N/A	A/N	A/N
6308072	A11161001_24	N/A	N/A	Y/A	N/A	N/A	N/A	V/N
6308073	A11161001_25	N/A	N/A	Y/N	N/A	N/A	A/A	N/A
6308074	A11161001_26	N/A	N/A	N/A	N/A	N/A	Y/Z	N/A
6308075	A11161001_27	A/N	N/A	Y/N	N/A	N/A	A/N	V/N
6308076		8444.73	N/A	8444.726	N/A	0.07568ug/L	A/N	N/N
6309549		N/A	N/A	N/A	N/A	A/N	N/A	N/A
CCV3		666098.45	V/¥	666098.454	5	4.97216ug/L	-0.56	V/N
Conditioner	A11161001_31	N/A	N/A	Y/X	N/A	N/A	Y/Z	N/A
6309550		N/A	N/A	A/N	N/A	N/A	N/A	N/A
6309551	A11161001_33	A/A	N/A	N/A	N/A	N/A	N/A	N/A
6309552	A11161001_34	6279.68	N/A	6279.678	N/A	0.05956ug/L	N/A	N/A
6309553	A11161001_35	N/A	N/A	Y/N	N/A	A/N	N/A	Y/N
6009554	A11161001_36	N/A	N/A	V/V.	N/A	. N/A	A/N	N/A
67,10724	A11161001_37	N/A	N/A	Y/Z	N/A	N/A	N/A	N/A
8 .		-				_		
- &				~•	Page 5 of 6			
21		- wz	-		Monsay, June 13, 2011, 14:17:54	, 11:17:54		
9	77			-		ξ.		
						**		

Laboratories

Laboratories	tories	LCMS	MS ANALY	SIS REPORT	: H			
Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Vrea Ratio Specified Amount	Calculated Amount	% Diff	Excluded
6310725	A11161001_38	4446.33	N/A	4446.331	N/A	0.04591ug/L	A/N / A/N	N/A
6310726	A11161001_39	N/A	N/A	Y/Z	N/A		Y/N	N/A
6310727	A11161001_40	N/A	N/A	V/V	N/A	A/X	N/A	N/A
CCV4	A11161001_41	1421680.51	N/A	1421680.508	10	10.59775ug/L	5.98	A/N



Sample Name:

6308068(BKG)

Data File:

A11161001 16

Sample Type: Run Time(min): Unknown

10.98

Injection Volume(µl): Dilution Factor:

Instrument Model:

5.00 1.00

TSQ Quantum Access Instrument Method:

C:\XCalibur\Hydrazine

Analysis\Hydraz 02

Acquisition Date:

Sample ID:

06/10/11 08:00:15 PM

6308068(BKG)

a:16

Instrument Software Version: 1.4.1

Instrument Name:

Original Data Path:

Instrument Serial Number:

Ouantum

TOU01408

C:\XCalibur\Hydrazine

Analysis\2011June

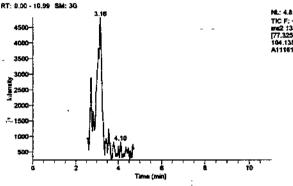
Operator:

Quantum

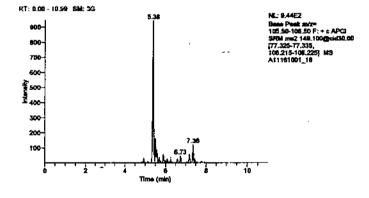
Ouan Peak Table

Vial:

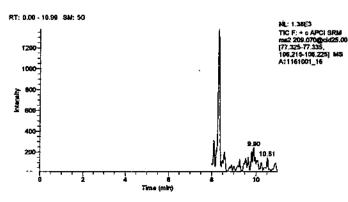
Component Name	Calculated Amount	Units	Response Ratio		٠.		RT_
Hydrazine	N/A	ug/L	N/A			-	N/A
1,1-Dimethylhydrazine	N/A	ug/L·	N/A			-	N/A
Monomethylhydrazine	N/A	ug/L	N/A	-	٠.		N/A



There's no data available to display this graphic object.



There's no data available to display this graphic object.



There's no data available to display this graphic object.

Page I of I Monday, June 13, 2011, 11:20:47

OLH78



Sample Name:

6308071

Data File:

A11161001 23

Sample Type:

Unknown

Run Time(min): Injection Volume(µl):

10.98 5.00

Dilution Factor:

Instrument Model: Instrument Method: 1.00

TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz 02

Operator:

Quantum

Acquisition Date:

Sample ID:

06/10/11 09:50:26 PM

6308071

a:17

Instrument Software Version:

Original Data Path:

Instrument Name: Instrument Serial Number: 1.4.1 Quantum

TOU01408

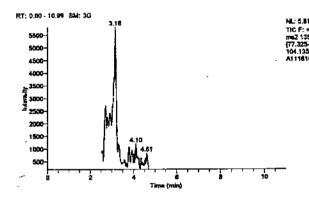
C:\XCalibur\Hydrazine

Analysis\2011June

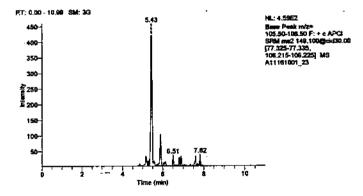
Ouan Peak Table

Vial:

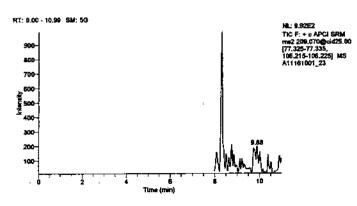
	<u>v</u>	14 1 11111 111111		
- Component Name	Calculated Amount	Units	Response Ratio	
· Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	2 N/A
Monomethylhydrazine	N/A	ug/L	· N/A	N/A



There's no data available to display this graphic object.



There's no data available to display this graphic object.



There's no data available to display this graphic object. OL#78 8\$22

> Page 1 of 1 Monday, June 13, 2011, 11:20:51



Sample Name:

6308072

Data File:

A11161001 24

Sample Type:

Unknown 10.98

Run Time(min): Injection Volume(µl):

5.00

Dilution Factor: Instrument Model: 1.00

Instrument Method:

TSQ Quantum Access

C:\XCalibur\Hydrazine

Analysis\Hydraz 02 Quantum

Acquisition Date:

Sample ID:

06/10/11 10:06:12 PM

6308072

a:18

1.4.1

Vial: Instrument Software Version:

Instrument Name:

Quantum

Instrument Serial Number: Original Data Path:

TQU01408 ...

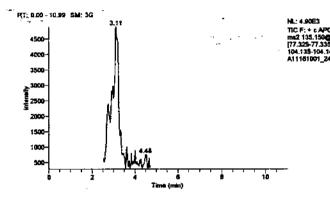
C:\XCalibur\Hydrazine

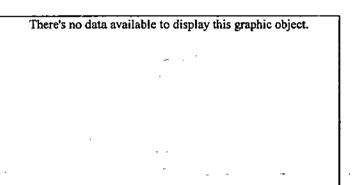
Analysis\2011June

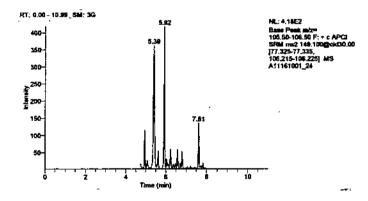
Operator:

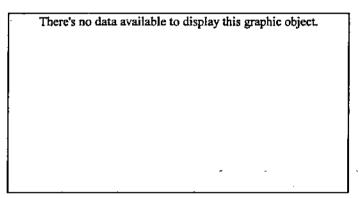
- Ouan Peak Table

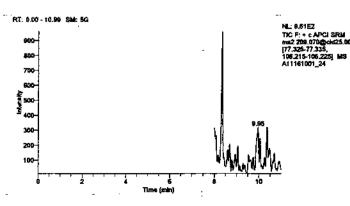
	Component Name	Calculated Amount	Units	Response Ratio	RT
- F	Hydrazine -	N/A	ug/L	N/A	N/A
	1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
	Monomethylhydrazine	N/A	ug/L	N/A	· N/A

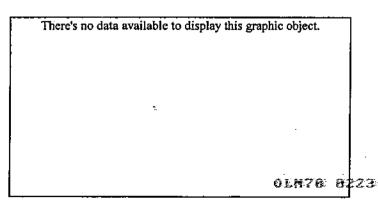












Page 1 of 1 Monday, June 13, 2011, 11:20:52



Sample Name:

6308073

Data File:

A11161001 25

Sample Type: Run Time(min): Unknown 10.98

Injection Volume(µi):

Dilution Factor:

Instrument Model: Instrument Method: 5.00 1.00

TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz_02

Operator:

Quantum

Acquisition Date:

Sample ID:

06/10/11 10:21:57 PM

6308073

a:19

Instrument Software Version:

Instrument Name:

1.4.1

n: 1.4.1

Instrument Serial Number:

Quantum TQU01408

Original Data Path:

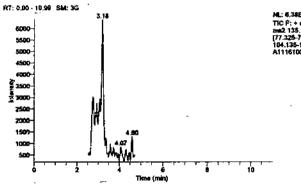
C:\XCalibur\Hydrazine

Analysis\2011June

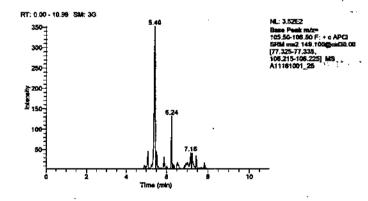
Ouan Peak Table

Vial:

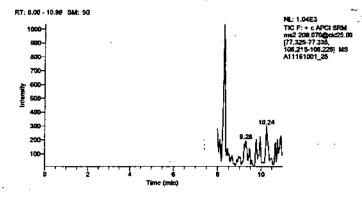
		V man	<u> </u>		
-	Component Name	Calculated Amount	Units	Response Ratio	RT
	Hydrazine	N/A	ug/L	N/A	N/A
	1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
	Monomethylhydrazine	N/A .	ug/L	N/A	- N/A -



ML 6.38E3 TIC P: + c APCI SRM ms2 135.150@cki20.00 [77.325-77.335, 104.135-104.145] MS There's no data available to display this graphic object.



There's no data available to display this graphic object.



There's no data available to display this graphic object.

OEN78. 8224

Page 1 of 1 Monday, June 13, 2011, 11:20:53 7 6/14/20



Sample Name:

6308074

Data File:

A11161001_26

Sample Type: Run Time(min): Unknown · 10.99

5.00 Injection Volume(µl): 1.00 Dilution Factor:

Instrument Model: Instrument Method: TSO Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz_02

Operator:

Quantum

Acquisition Date:

Sample ID:

06/10/11 10:37:43 PM

6308074

a:20

Instrument Software Version: Instrument Name:

Instrument Serial Number:

Original Data Path:

1.4.1 Quantum

TQU01408

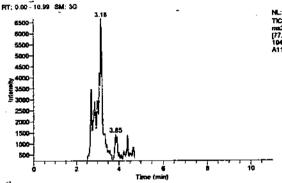
C:\XCalibur\Hydrazine

Analysis\2011June

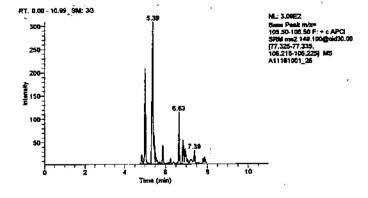
Quan Peak Table

Vial:

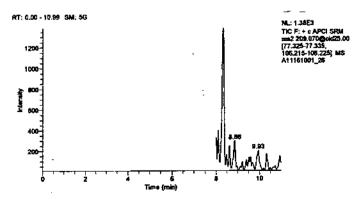
	Q			
_ Component Name	Calculated Amount	Units	Response Ratio	 RT
Hydrazine	N/A	ug/L ·	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	 -N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



There's no data available to display this graphic object.



There's no data available to display this graphic object.



There's no data available to display this graphic object. oimza a125

> Page 1 of 1 Monday, June 13, 2011, 11:20:54



Sample Name:

6308075

Data File:

Operator:

Sample Type:

A11161001_27

Unknown

Run Time(min): Injection Volume(µI):

10.98

5.00

Dilution Factor: Instrument Model:

Instrument Method:

1.00

TSO Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz_02

Quantum

Acquisition Date:

Sample ID:

06/10/11 10:53:29 PM

6308075

a:21

1,4.1 Instrument Software Version:

Original Data Path:

Instrument Name: Instrument Serial Number: Quantum

TQU01408

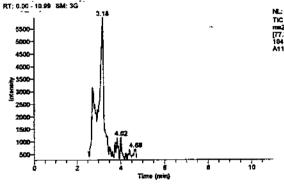
C:\XCalibur\Hydrazine

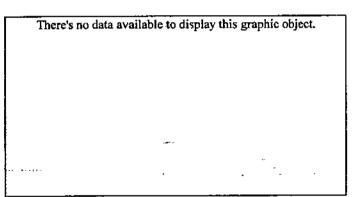
Analysis\2011June

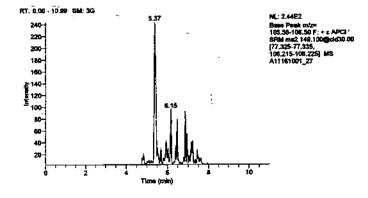
Quan Peak Table

Vial:

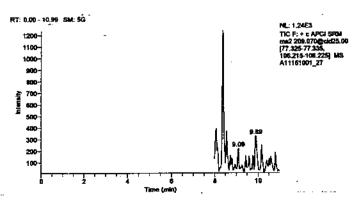
Component Name	Calculated Amount	Units	 Response Ratio	 	RT
Hydrazine	N/A	ug/L	N/A	F	N/A
1.1-Dimethylhydrazine	N/A	ug/L	N/A		N/A
Monomethylhydrazine	N/A	ug/L	N/A		N/A







There's no data available to display this graphic object.



There's no data available to display this graphic object. OLN78 0226

> Page 1 of 1 Monday, June 13, 2011, 11:20:55



Sample Name:

6308076

Data File:

A11161001 28

Sample Type:

Unknown

Run Time(min):

10.99 5.00

Injection Volume(µl): Dilution Factor:

Instrument Model:

Instrument Method:

1.00

TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz 02

Ouantum

Acquisition Date: Sample ID:

06/10/11 11:09:13 PM

6308076

a:22

Vial: Instrument Software Version:

-1.4.1 Quantum

Instrument Name:

Original Data Path:

Instrument Serial Number:

TOU01408

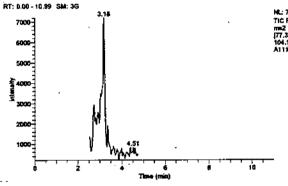
C:\XCalibur\Hydrazine

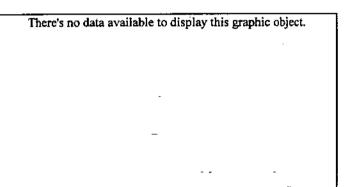
Analysis\2011June

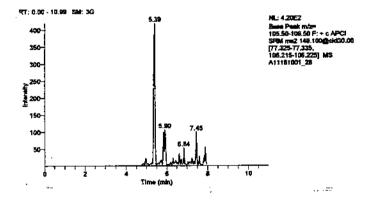
Operator:

Ouan Peak Table

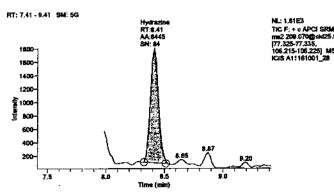
Component Name	Calculated Amount	Units	Response Ratio	RT
 1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	34 N/A ⊋	∞ : ug/L	N/A	- N/A
Hydrazine	0.076	ug/L	8444,726	8.41







There's no data available to display this graphic object.



A11161001_28 #639 RT: 8.41 AV: 1 NL: 1.48E3 -F: + c APCT SRM ms2 209.070@cid25.00 [77.325-77.335, 106.215-106.225] 100-106.22 77.335 0187**6°2**8227

Page 1 of 1 Monday, June 13, 2011, 11:20:56

Standards Data



							Sequence Table		
File Name	Sample ID	Sample Type	Level	Vial	Vol	Dil Factor	Path	Inst Method	Proc Method
A11161001_01	conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Ilydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
A11161001_02	conditioner	Unknown	N/A	A:1	5.0	1.000	Analysis/2011June C:\XCalibur\Hydrazine	Analysis/riydraz 02 C:\XCalibur\Hydrazine	Analysis arrocessing internous rust C:\XCalibut\Hydrazine
411121001 02	(Id) Carra		****	•	•	900	Analysis/2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
CO_10010111A	STS(MDL)	Oilkilown	V.V	A:2	3.0	1.000	C:vv.camburutydrazine Analysis/2011 June	C:\Acailbur\ryuraziic Analysis\Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_04	CALI	Std Bracket	-	A:3	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
A11161001 05	CA13	Ood Denotice	•	¥. 4	•	000	Analysis/2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
CO_1001011112	7767	old Diackel	7	¥.	0,0	1.000	C: Continuing of the Analysis (2011) Time	C:\Analysis\Hydraz\\02	Analysis/Processing Methods/Hydraz
A11161001_06	CAL3	Std Bracket	æ	A:5	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
	1	,					Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_07	CAL4	Std Bracket	4	A:6	2.0	000'	C:\XCalibur\Ifydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
A11161001 08	CALK	Cod Brooket		ŗ.	•	000	Analysis/2011 une	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
no inniniii	GU)	SIN DIACKEL	٦	ć	2	1.000	Anglysis/2011 Inne	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_09	CAIA	Std Bracket	9	A:8	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
'							Analysis\2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_10	CAL7	Std Bracket	~	A:9	5.0	000.1	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
	Č			,	,		Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11561001_11	CAL	Std Bracket	æ	A:10	2.0	1.000	C:\XCalibur\llydrazine	C:\XCalibut\Hydrazine	C:\XCaibur\Hydrazine
4111611001111		-	1111	•			Analysis/2011/une	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_12	Conditioner	Unknown	Υ Z	A::	O:C	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:XCaliburHydrazine
A11161001 13	Conditioner	Linknown	A/N	Α٠١	9	1 000	Analysis/2011/une C-\XCalibadIvdeszin»	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz C-/XCalibur/Hydrazing
					;	2	sail 1100% isolated	Analysis/Hydraz 07	Analysis/Processing Methods/Hydraz
A11161001_14	BLK (reagent)	Blank	V/A	a:11	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
l	•						Analysis/2011 June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_15	CCVI	ဂ်	-	a:5	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCelibur\Hydrazine	C:\XCalibur\Hydrazine
***************************************		;	į	;		:	Analysis/2011 June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_16	6308068(BKG)	Unknown	V/A	a:16	5.0	000:	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
A11161001 17	30 1/101	Tlabacan	V/V	.13	4	000	Analysis/2011June	Analysis/Hydraz 02	Analysistrocessing Memoustryuraz
/1 10010111V	1CV/LC3	Olikilowii	INA	71:8	0.0	1.000	C:\ACaliburunydrazine	C. Accliniour days of	C. W. Callbur VI yunazini Amerika December Mashodak Hudan
A11161001 18	ICV/LCSD	Unknown	N/A	a:13	5,0	1.000	CAXCaliburHydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
I							Analysis/2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_19	6308069MS	Unknown	N/A	a:14	5.0	1,000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_20	6308070MSD	Unknown	Y/A	a:15	2.0	1.030	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
A11161001 21	CCV)	Ü	` (,	0.5	1 000	Analysis/2011) une	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz CAXCalibur/Hydrazine
•			1	d	?	2001	Analysis/2011 line	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001 22 📆	Conditioner	Unknown	N/A	A:1	5.0	1.000	C:XCallburtHydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
							Analysi3/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
Ø							~	••	
ļ	:								

Page 1 of 2 Monday, June 13, 2011, 11:17:48

6229

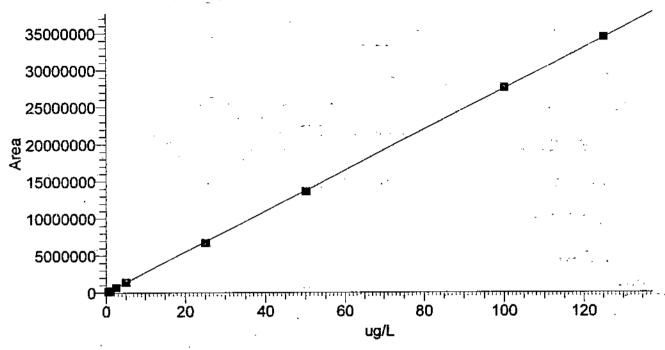
File Name	Sample ID	Sample Type	Level	Vial	· Έ	E C	Path	Inst Method	Proc Method
		-	-	İ	티	Factor			
A11161001_23	6308071	Unknown	YZ.	a:17	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
	:						Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_24	6308072	Unknown	Y/N	#: •••	2.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
AC 100171114	CE000C)		777.	9	•	,	Analysis/2011/une	Analysis Hydraz 02	Analysis/Processing Methods/Hydraz
411101001_25	03080/3	Chknown	K/Z	a:19	O.	000.	C:\XCalibur\!ydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
		,					Analysis/2011June	Analysis\Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_26	6308074	Unknown	Y/N	a:20	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCaljbur\Hydrazine	C:\XCalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_27	6308075	Unknown	Y/A	a:21	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
		-					Analysis/2011June	Analysis\Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_28	6308076	Unknown	Y/N	a:22	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_29	6309549	Unknown	Y/A	a:23	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_30	CCV3	8	æ	a:7	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
		-					Analysis\2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_31	Conditioner	Unknown	Y/N	A:1	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_32	6309550	Unknown	N/N	a:24	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
		-	•				Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_33	6309551	Unknown	Ϋ́	a:25	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
1	;				→-		Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_34	6309552	Unknown	V/V	a:26	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XÇalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_35	6309553	Unknown	Ϋ́χ	a:27	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
				-	-		Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_36	6309554	Unknown	Y/X	а:28	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
	:						Analysis/2011/une	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_37	6310724	Unknown	Y/X	a:29	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_38	6310725	Unknown	Ϋ́	a:30	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_39	6310726	Unknown	Υ N	a:31	5.0	1,000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz 02	Analysis/Processing Methods/Hydraz
A11161001_40	6310727	Unknown	Y/X	a:32	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
		;		-,	1		Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz
A11161001_41	CCV4	S,	4	A:8	5.0	1.000	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine	C:\XCalibur\Hydrazine
							Analysis/2011June	Analysis/Hydraz_02	Analysis/Processing Methods/Hydraz



Component Name:

Monomethylhydrazine

Monomethylhydrazine Y = 10078.5+274148*X R^2 = 0.9999 W: 1/X



Identification Filter:	÷ c APCI SRM ms2 135.15@cid20.00	Component Name: 1st Trace Type:	Monomethylhydrazine TIC
2nd Trace Type: Mass Range 2 (m/z): Base Peak(BP):	[77.33-77.33, 104.14-104.15] N/A	Mass Range 1 (m/z): Wavelength Range 2 (nm):	N/A
Retention Time Window (sec): RT Reference: Adjust Using:	30.00000 No N/A	Expected RT (min): View Width (min): Adjust Expected RT:	3.80000 2.50000 No
Detection Options		Peak Detection Algorithm: ICIS Peak Integration	ICIS .
ICIS Smoothing Points: Area Noise Factor: ICIS Constrain Peak Width: ICIS Tailing Factor:	3 5 No N/A	Baseline Window: Peak Noise Factor: ICIS Peak Height (%):	75 10 .N/A
ICIS Peak Detection ICIS Minimum Peak Height (S/N): ICIS Window %;	50.0 N/A	ICIS Identify By: ICIS Ion Ratio Confirmation: ICIS Qualifier Ion Coelution (min): ICIS Spectrum Thresholds	Nearest RT N/A N/A
ICIS Forward: ICIS Match:	N/A N/A	ICIS Reverse:	N/A
ICIS Advanced Parameters Minimum Peak Width: Area Tail Extension:	3 5	Noise Method: Multiplet Resolution: Area Scan Window: Calibration	Incos 10 0
Component Type:	Target Compound	%RSD Calculation Method: Internal Standard	Use calculated amounts
ISTO Amount:	N/A	ISTD Units: Target Compounds	N/A
ISTD: Origin: Calibration Curve: Number of Cal. Levels:	IgnoreOrigin Linear 8	Weighting: Response: Target Units: Number of QC Levels: Peak Purity Options	OneOverX Area ug/L 4 OLH 78 72
Scan Threshold (mAU): Limit ScanRange (nm):	N/A N/A	Peak Coverage (%):	N/A

Page 1 of 6 Monday, June 13, 2011, 11:18:00



Compo	<u>nent Cal Level Ta</u>	<u>ble</u>
• (Cal Level	Amount
 	1.	0,500
	2	1.000
	3	2.500
	4	5.000
	5	25.000
	6	50.000
	7	100.000
	8	125.000

Component QC Level	<u>Table</u>
QC Level	Amount
1	2.500
2	5.000
3	25.000
4	50,000

	ICV & CCV R	esult Table		
Sample ID	Data File Name	Calculated Amount	Area	% Diff
CAL1	A11161001 04	0.52137ug/L	153010.26	4.27
CAL2	A11161001_05	0.95666ug/L	272345.05	-4.33
CAL3	A11161001_06	2.48432ug/L	691148.68 -	0.63
CAL4	A11161001_07	5.13051ug/L	1416596.04	2.61
CAL5	A11161001_08	24.52734ug/L	6734190.51	-1.89
CAL6	A11161001_09	49.64756ug/L	13620836.25	0.70
CAL7	A11161001_10	100.43463ug/L	27543990.24	0.43
CAL8	A11161001_11	125.29760ug/L	34360113.83	0.24
CCV1	A11161001_15	2.55592ug/L	710777.73	2.24
CCV2	A11161001_21	4.92303ug/L	1359715.05	-1.54
CCV3	A11161001-30	25.93171ug/L	7119193.60	- 3.73
CCV4	A11161001_41	49.51425ug/L	13584290.17	-0.97

OLN78 9/32

Page 2 of 6 Monday, June 13, 2011, 11:18:00

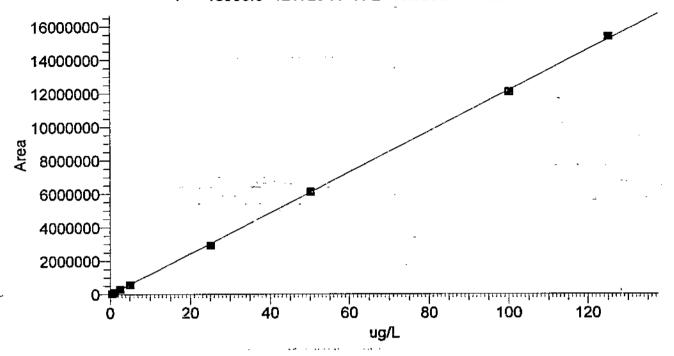
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Component Name:

1,1-Dimethylhydrazine

1,1-Dimethylhydrazine Y = -13988.6+121729*X R^2 = 0.9998 W: 1/X



Identification		Component Name:	1,1-Dimethylhydrazine
Filter:	+ c APCI SRM ms2 149.10@cid30.00 [77.33-77.33, 106.22-106.22]	Ist Trace Type:	Base Peak
2nd Trace Type:	N/A	Mass Range I (m/z):	
Mass Range 2 (m/z): Base Peak(BP):	106	Wavelength Range 2 (mm):	N/A -
Retention Time	·	Expected RT (min):	5.87000
Window (sec):	30,00000	View Width (min):	2.50000
RT Reference:	No	Adjust Expected RT:	No _
Adjust Using:	N/A	The state of the s	ICIO
Detection Options		Peak Detection Algorithm: ICIS Peak Integration	ICIS
ICIS Smoothing Points:	3	Baseline Window:	-75 ····································
Area Noise Factor:	5		
ICIS Constrain Peak Width:	No -	ICIS Peak Height (%):	, N/A
ICIS Tailing Factor:	N/A		- -
ICIS Peak Detection		ICIS Identify By: ICIS Ion Ratio Confirmation:	Nearest RT N/A
ICIS Minimum Peak Height (S/N): ICIS Window %:	50.0 N/A	ICIS Qualifier Ion Coelution (min):	N/A N/A
icis window %:	N/A	ICIS Spectrum Thresholds	1973
ICIS Forward:	N/A	ICIS Reverse:	N/A
ICIS Match;	N/A		
ICIS Advanced Parameters		Noise Method:	Incos
Minimum Peak Width:	3	Multiplet Resolution:	10
Area Tail Extension:	5	Area Scan Window: Calibration	0
Component Type:	Target Compound	%RSD Calculation Method: Internal Standard	Use calculated amounts
ISTD Amount:	N/A	ISTD Units: Target Compounds	N/A
ISTD:		Weighting:	OneOverX
Origin:	IgnoreOrigin	Response:	Area
Calibration Curve:	Linear	Target Units:	ug/L
Number of Cal. Levels:	8	Number of QC Levels: Peak Purity Options	4 OLNZO- O
Scan Threshold (mAU):	N/A	Peak Coverage (%):	N/A
Limit ScanRange (nm):	N/A		wither 11
			9/1

Page 3 of 6

Monday, June 13, 2011, 11:18:00



Component Cal Level Tab	<u>le</u>
Cal Level	Amount
1	0.500
2	1.000
3	2.500
4	5.000
5	25.000
6	50.000
7	100.000
8	125.000

Component QC Level Table	
QC Level	Amount
1	2.500
2	5.000
3	25.000
4	50.000

ICV & CCV Result Table					
Sample ID		Data File Name	Calculated Amount	Area	% Diff
CAL1		A11161001 04	0.48165ug/L	44641.92	-3.67
CAL2		A11161001 05	1.05935ug/L	114965.27	5.94
CAL3		A11161001 06	2.58711ug/L	300936.96	3.48
CAI.4		A11161001 07	4.83779ug/L	574908.64	-3.24
CAL5		A11161001 08	24.11956ug/L	2922053.79	-3.52
CAL6		A11161001 09	50.35326ug/L	6115447.27	0.71
CAL7		A11161001 10	99.30366ug/L	12074114.06	-0.70
CAL8		A11161001 11	126.25761ug/L	15355182.58	1.01
CCV1		A11161001 15	2.42572ug/L	281290.71	~ -2.97
CCV2		A11161001 21	4.95684ug/L	589400.90	-0.86
CCV3		A11161001 30	24.47297ug/L	2965073.86	-2.11
CCV4		A11161001_41	48.25963ug/L	5860591.47	-3.48

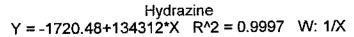
OEN78 8234

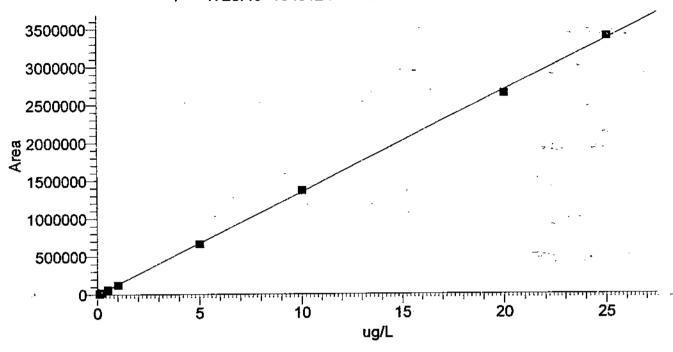
Page 4 of 6 Monday, June 13, 2011, 11:18:00



Component Name:

Hydrazine





Identification Filter:	.+c APCI SRM ms2 209.07@cid25.00 [77.33-77.33, 106.22-106.22]	•	Hydrazine TIC
2nd Trace Type: Mass Range 2 (m/z): Base Peak(BP):	N/A ·	Mass Range I (m/z): Wavelength Range 2 (nm):	
Retention Time Window (sec): RT Reference: Adjust Using:	30.00000 No . N/A	Expected RT (min): View Width (min): Adjust Expected RT:	8.31000 2.00000 No
Detection Options		Peak Detection Algorithm: ICIS Peak Integration	ICIS-
ICIS Smoothing Points: Area Noise Factor: ICIS Constrain Peak Width: ICIS Tailing Factor:	5 5 No N/A	Baseline Window: Peak Noise Factor: ICIS Peak Height (%):	75 10 N/A
ICIS Peak Detection ICIS Minimum Peak Height (S/N): ICIS Window %:	50.0 N/A	ICIS Identify By: ICIS Ion Ratio Confirmation: ICIS Qualifier Ion Coelution (min): ICIS Spectrum Thresholds	Nearest RT N/A N/A
ICIS Forward: ICIS Match:	N/A N/A	ICIS Reverse:	N/A
ICIS Advanced Parameters Minimum Peak Width: Area Tail Extension:	3 5	Noise Method: Multiplet Resolution: Area Scan Window: Calibration	Incos 10 0
Component Type:	Target Compound	%RSD Calculation Method: Internal Standard	Use calculated amounts
ISTD Amount:	N/A	ISTD Units: Target Compounds	N/A
ISTD: Origin: Calibration Curve: Number of Cal. Levels:	IgnoreOrigin Linear 8	Weighting: Response: Target Units: Number of QC Levels: Peak Purity Options	OneOverX Area ug/L 4 GLN78 623
Scan Threshold (mAU): Limit ScanRange (nm):	N/A N/A	Peak Coverage (%):	N/A

Page 5 of 6 Monday, June 13, 2011, 11:18:00 8/14/201



CCV4

LCMSMS ANALYSIS REPORT

Component Cal Level Table			
Cal Level	Amount		
1	0.100		
_ 2 .	0.200		
3	0.500		
4	1.000		
5	5.000		
. 6	10.000		
7	20.000		
8	25.000		

Component OC Level Table			
QC Level	Amount		
1	0.500		
2	1.000		
3	5.000		
4	10.000		

ICV & CCV Result Table					
Sample ID	Data File Name	Calculated Amount	Агеа _	% Diff	
CAL1	A11161001_04	0.10277ug/L	12083.07	2.77	
CAL2	A11161001 05	0.21818ug/L	27583.66	9.09	
CAL3	A11161001 06	0.46908ug/L	61282.56	-6.18	
CAL4	A11161001 07	0.94043ug/L	124589.91	-5.96	
CAL5	A11161001 08	4.94749ug/L	662784.46	-1.05	
CAL6	A11161001 09	10.19380ug/L	1367424.96	1.94	
CAL7	A11161001 10	19.67729ug/L	2641166.41	-1.61	
CAL8	A11161001 11	25.25096ug/L	3389775.58	1.00	
CCV1	A11161001 15	0.49290ug/L	64481.08	-1.42	
CCV2	A11161001 21	0.98615ug/L	130730.53	-1.39	
CCV3	A11161001 30	4.97216ug/L	666098.45	-0.56	
- C13	111101001_5		1 401 600 51	F 00	

10.59775ug/L

1421680.51

A11161001_41

OLM76 8236

5.98

Page 6 of 6
Monday, June 13, 2011, 11:18:00



Sample Name:

CALI

Data File:

A11161001 04

Sample Type: Run Time(min): Std Bracket

10.99

Injection Volume(µl): Dilution Factor:

5.00

Instrument Model: Instrument Method:

Operator:

1.00 TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz_02

Quantum

Acquisition Date: Sample ID:

06/10/11 04:51:27 PM

CAL1

A:3

Instrument Software Version: 1.4.1

Instrument Name:

Original Data Path:

Instrument Serial Number:

Ouantum ...

TQU01408

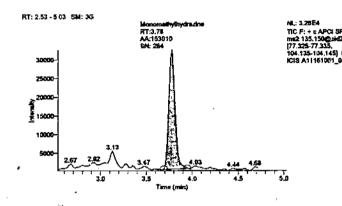
C:\XCalibur\Hydrazine

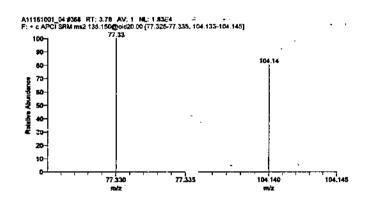
Analysis\2011June

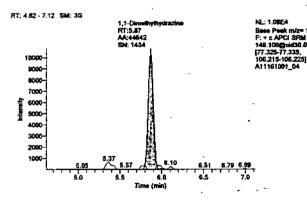
Ouan Peak Table

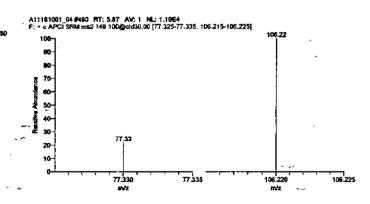
Vial:

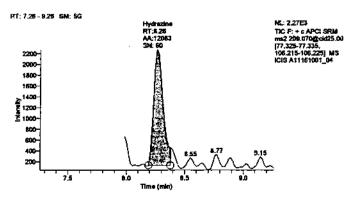
Component Name	Calculated Amount	 Units	Response Ratio	 RT
Monomethylhydrazine	0.521	ug/L	153010.257	3.78
1,1-Dimethylhydrazine	0.482	ug/L	44641.921	 5.87
Hydrazine	0.103	ug/L	12083.074	8.26

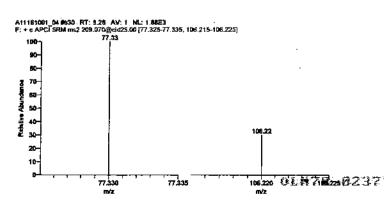




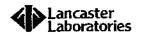








Page 1 of 1 Monday, June 13, 2011, 11:20:33



Sample Name:

CAL2

Data File:

A11161001_05

Sample Type: Run Time(min):

Std Bracket 10.98

Injection Volume(µl): Dilution Factor:

... Instrument Method:

Instrument Model:

Operator:

5.00

1.00

TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz_02

Quantum

Acquisition Date:

Sample ID:

Vial: Instrument Software Version:

Instrument Name:

Instrument Serial Number:

Original Data Path:

A:4

CAL2 1.4.1

Quantum TQU01408

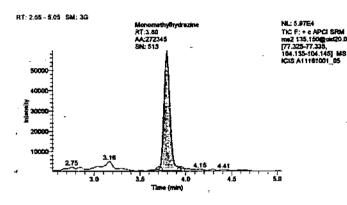
C:\XCalibur\Hydrazine

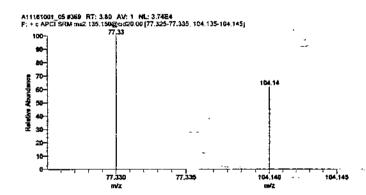
06/10/11 05:07:11 PM

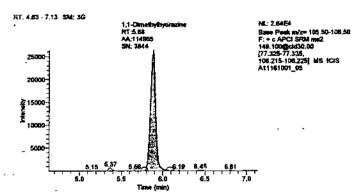
Analysis\2011June

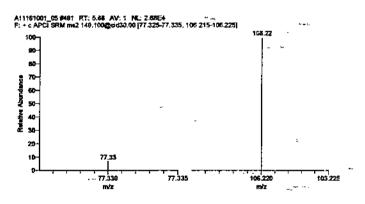
Ouan Peak Table

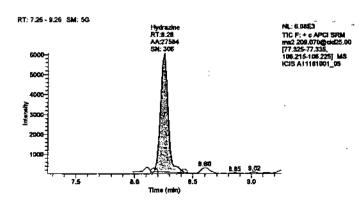
 Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	0.957	ug/L	272345.052	- 3.80
1,1-Dimethylhydrazine	1.059	ug/L	114965.270	5.88
Hydrazine	0.218	ug/L	27583.657	8.26

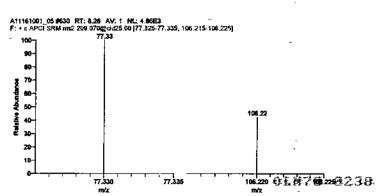












Page 1 of 1 Monday, June 13, 2011, 11:20:34



Sample Name:

CAL3

Data File:

Operator:

A11161001 06

Sample Type:

Std Bracket

Run Time(min): Injection Volume(µl):

10.99 5.00

Dilution Factor:

Instrument Model: Instrument Method: 1.00 TSQ Quantum Access

C:\XCalibur\Hydrazine

Analysis\Hydraz_02 Quantum

Acquisition Date: Sample ID:

06/10/11 05:22:54 PM

CAL3

A:5 1.4.1

Instrument Software Version:

Instrument Name: -

Instrument Serial Number:

Original Data Path:

Quantum TOU01408

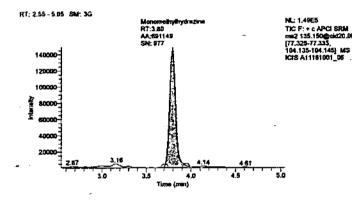
C:\XCalibur\Hydrazine

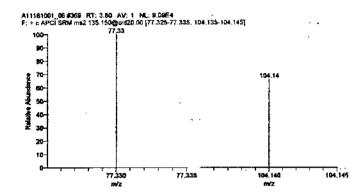
Analysis\2011June

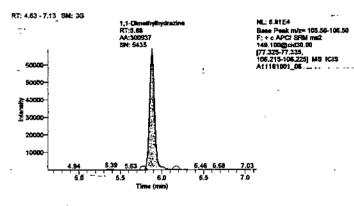
Ouan Peak Table

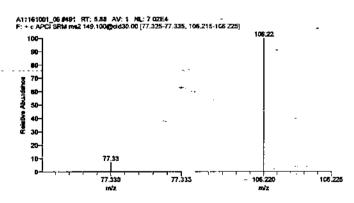
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	2.484	ug/L	691148.680	3.80
1,1-Dimethylhydrazine	2.587	ug/L	300936.963	- 5.88
Hydrazine	0.469	ug/L	61282.560	8.28

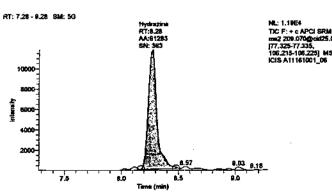
Vial:

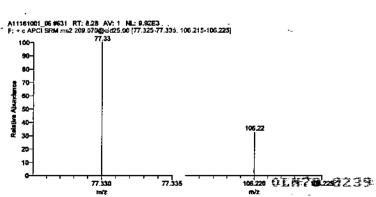












Page I of I Monday, June 13, 2011, 11:20:35



Sample Name:

CAL4

Data File:

A11161001_07

Sample Type: Run Time(min): Std Bracket

10.98

Injection Volume(µl): Dilution Factor:

5.00

Instrument Model: Instrument Method: 1.00 TSQ Quantum Access. C:\XCalibur\Hydrazine

Analysis\Hydraz_02 Quantum

Operator:

Acquisition Date:

06/10/11 05:38:38 PM

Sample ID:

Vial:

CAL4 A:6

Instrument Software Version:

1.4.1

Instrument Name:

Instrument Serial Number:

Quantum

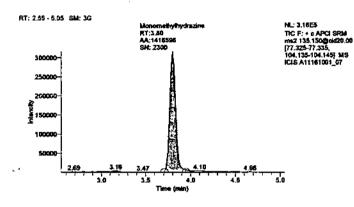
Original Data Path:

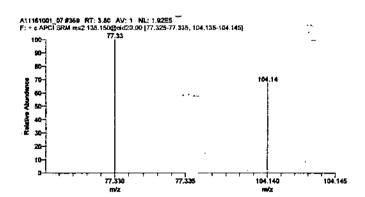
TQU01408 -C:\XCalibur\Hydrazine

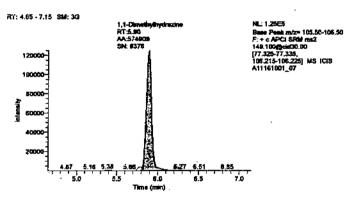
Analysis\2011June

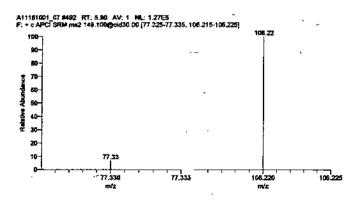
Quan Peak Table

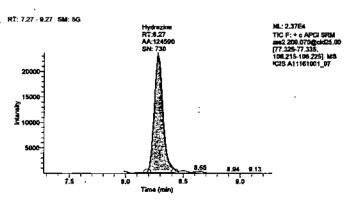
Component Name	Calculated Amount .	Units	Response Ratio	RT
Monomethylhydrazine	5.131	ug/L	1416596.036	3.80
1,1-Dimethylhydrazine	4.838	ug/L	574908.644	5.90
Hydrazine	0,940	υg/L	124589.912	8.27

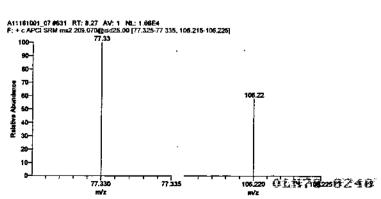












Page 1 of 1 Monday, June 13, 2011, 11:20:36



Acquisition Date:

Sample Name:

CAL5

Data File:

A11161001 08

Std Bracket

Sample ID: Vial:

06/10/11 05:54:22 PM

Sample Type: Run Time(min):

Dilution Factor:

10.99 5.00

Instrument Software Version:

Instrument Name:

Original Data Path:

CAL5 A:7

1.00

1.4.1

Instrument Model: Instrument Method:

Injection Volume(µl):

TSQ Quantum Access

Quantum Instrument Serial Number: TQU01408

C:\XCalibur\Hydrazine Analysis\Hydraz 02

C:\XCalibur\Hydrazine

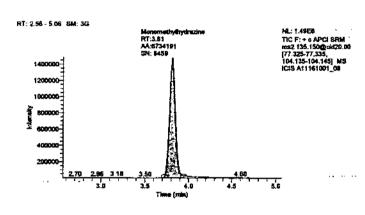
Analysis\2011June

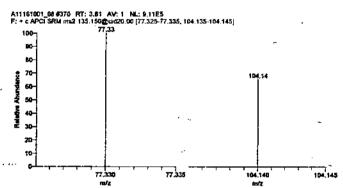
Operator:

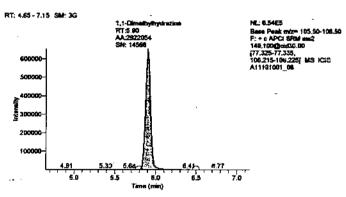
Quantum

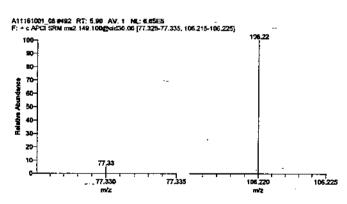
Ouan Peak Table

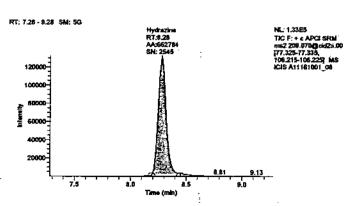
Component Name	Calculated Amount	Units	Response Ratio		RT
Monomethylhydrazine	24.527	ug/L	6734190.513	_	3.81
1,1-Dimethylhydrazine	24.120	ug/L	- 2922053.788		5.90
Hydrazine -	4.947	ug/L	662784.461		8.28

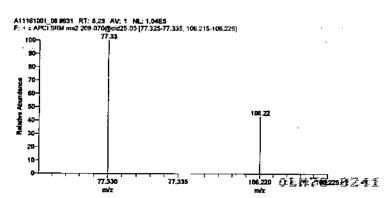












Page 1 of 1 Monday, June 13, 2011, 11:20:36



Sample Name:

CAL6

Data File:

A11161001_09

Sample Type:

Std Bracket

Run Time(min):

10.99 5.00

Injection Volume(μ1): Dilution Factor:

1.00

Instrument Model: Instrument Method: TSO Quantum Access C:\XCalibur\Hydrazine --

Analysis\Hydraz 02

Operator:

Quantum

Acquisition Date:

06/10/11 06:10:05 PM

CAL6

Sample ID: Vial:

A:8 Instrument Software Version:

Instrument Name:

1.4.1 Ouantum

Instrument Serial Number:

TOU01408

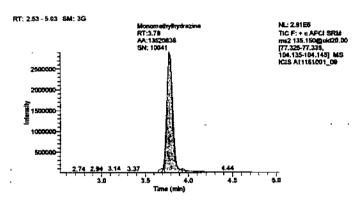
Original Data Path:

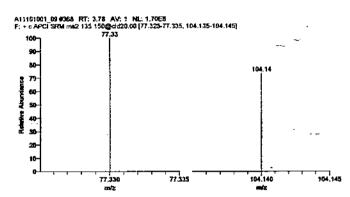
C:\XCalibur\Hydrazine

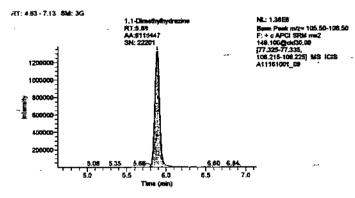
Analysis\2011June

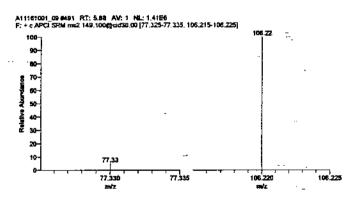
Onan Peak Table

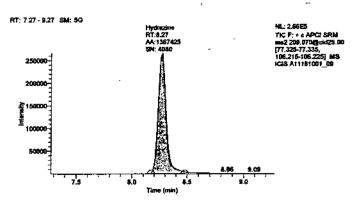
	V 11411 1 1	VAIL I HOIV		
 Component Name	Calculated Amount	Units	Response Ratio	RT
 Monomethylhydrazine	49.648	ug/L	13620836.255	-3.78
1,1-Dimethylhydrazine	50.353	ug/L	6115447.273	5.88
Hydrazine	10.194	·- ug/L	1367424.963	8.27

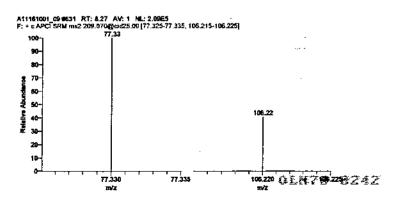














Sample Name:

CAL7

Data File:

A11161001_10

Sample Type:

Std Bracket

Run Time(min):

10.99

Injection Volume(µ1): Dilution Factor:

5.00

Instrument Model:

1.00

Instrument Method:

TSQ Quantum Access

Analysis\Hydraz_02

Operator:

C:\XCalibur\Hydrazine

Quantum

Acquisition Date:

06/10/11 06:25:49 PM

CAL7

Sample ID: Vial:

A:9 ·

Instrument Software Version:

1.4.1

Instrument Name:

Instrument Serial Number:

Quantum TQU01408

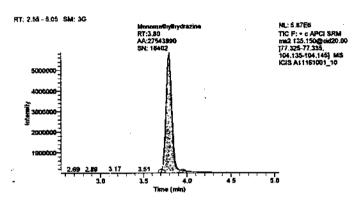
Original Data Path:

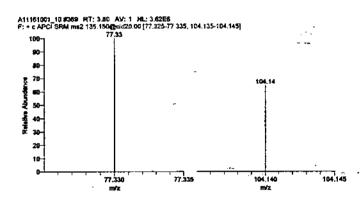
C:\XCalibur\Hydrazine

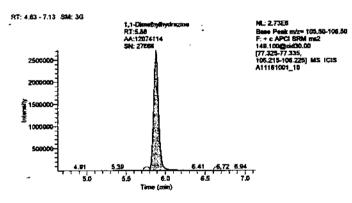
Analysis\2011June

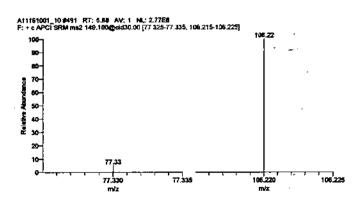
Ouan Peak Table

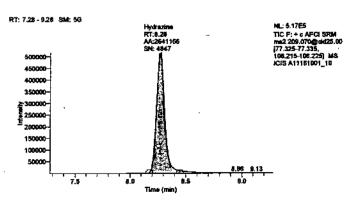
		<u> </u>	111 T V	 -			
<u></u>	Component Name	Calculated Amount		Units	Response Ratio		RT
Mor	omethylhydrazine	100.435	· · ·	 ug/L	27543990.240		3.80
1,1-1	Dimethylhydrazine	99.304	-	ug/L	12074114.063	. .	5.88
•	Hydrazine	19.677		ug/L	2641166.406		8.28

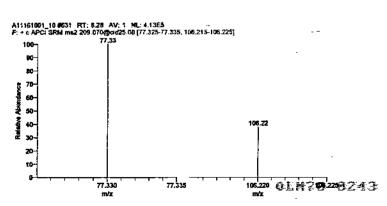














Sample Name:

Data File:

Sample Type:

Run Time(min): Injection Volume(µI):

Dilution Factor:

Instrument Model:

- Instrument Method:

Quantum

CAL8

A11161001-11

Std Bracket

10.98 5.00

1.00 TSQ Quantum Access

C:\XCalibur\Hydrazine Analysis\Hydraz_02

Acquisition Date:

06/10/11 06:41:32 PM

CAL8 A:10

Sample ID: Vial:

Instrument Software Version:

Instrument Name:

1.4.1 Ouantum

Instrument Serial Number: -Original Data Path:

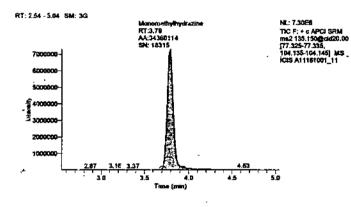
TOU01408 C:\XCalibur\Hydrazine

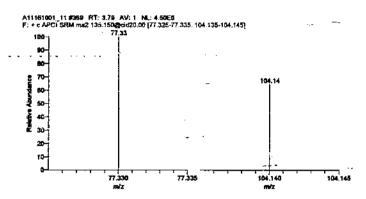
Analysis\2011June

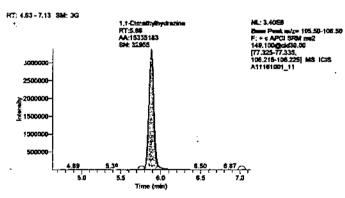
Operator:

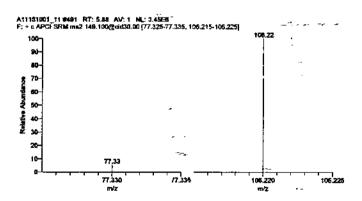
Ouan Peak Table

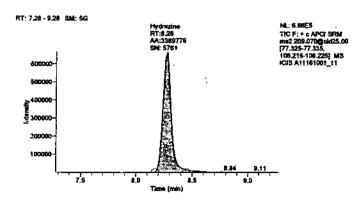
Component Name	Calculated Amount	-Units	Response Ratio		RT
Monomethylhydrazine	125.298	·· ug/L:	34360113.827		3.79
1,1-Dimethylhydrazine	126.258	ug/L	15355182.581	17.7 - A	5.88
Hydrazine	25.251	ug/L	3389775.575		8.28

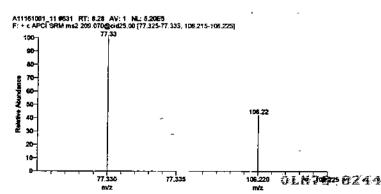














Sample Name:

SYS(MDL)

Data File:

A11161001 03

Sample Type:

Unknown

10.99

Run Time(min): Injection Volume(µl):

Dilution Factor:

5.00

Instrument Model:

1.00

Instrument Method:

TSO Quantum Access C:\XCalibur\Hvdrazine

Operator:

Analysis\Hydraz 02

Quantum

Acquisition Date:

06/10/11 04:35:45 PM

SYS(MDL)

Sample ID: Vial:

A:2

Instrument Software Version:

1.4.1

Instrument Name:

Quantum

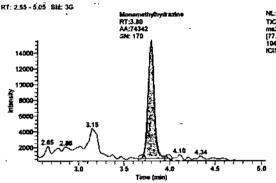
Instrument Serial Number: Original Data Path:

TQU01408 C:\XCalibur\Hydrazine

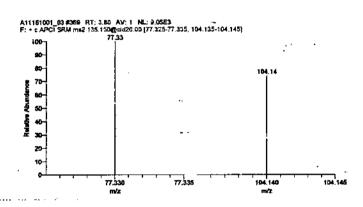
Analysis\2011June

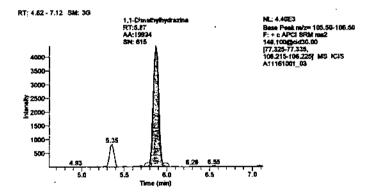
Ouan Peak Table

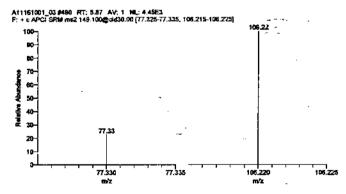
Component Name	Calculated Amount	Units	Response Ratio	<u> </u>	RT
Monomethylhydrazine	0.234	ug/L	74342.155		3.80
1,1-Dimethylhydrazine	0.279	ug/L	19994.208	-	5.87
Hydrazine	0.060	ug/L	6327.782		8.31

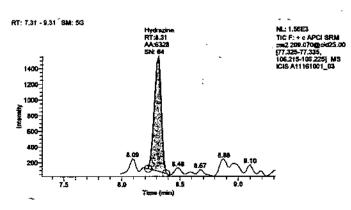


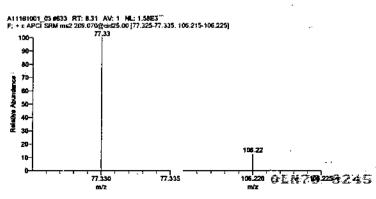












Page 1 of 1 Monday, June 13, 2011, 11:20:44



Sample Name:

ICV/LCS

Data File:

A11161001_17

Sample Type:

Unknown

Run Time(min):

10.99

Injection Volume(µI): Dilution Factor:

5.00

Instrument Model: Instrument Method: 1.00

TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz_02

Acquisition Date:

06/10/11 08:16:01 PM

Sample ID:

Vial:

a:12

Instrument Software Version:

1.4.1

Instrument Name:

Quantum

ICV/LCS

Instrument Serial Number: Original Data Path:

TQU01408 C:\XCalibur\Hydrazine

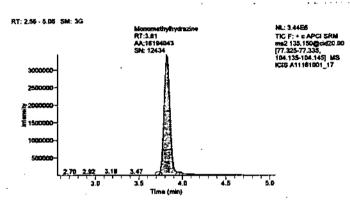
Analysis\2011June

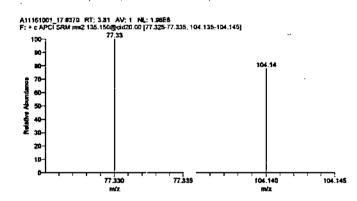
Operator:

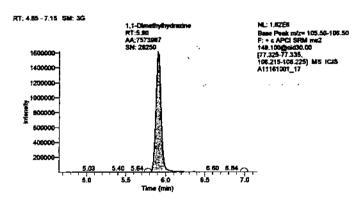
Quantum

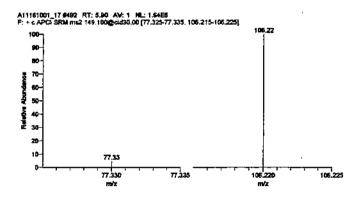
Ouan Peak Table

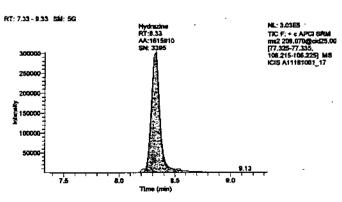
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	59.034	ug/L	16194042.799	3.81
1,1-Dimethylhydrazine	62.335	ug/L	7573987.066	5.90
Hydrazine	12.044	ug/L	1615910.437	8.33

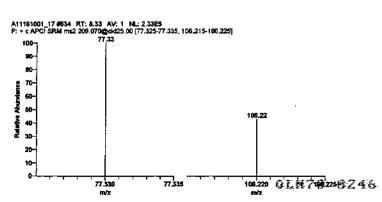












Page 1 of 1 Monday, June 13, 2011, 11:20:48

8/11/201



Sample Name:

CCV1

Data File:

A11161001 15

Sample Type: Run Time(min):

QC.

10.99 5.00

Injection Volume(µl): Dilution Factor:

Instrument Model: Instrument Method: 1.00

TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz 02 Quantum

Operator:

Acquisition Date:

Sample ID:

Original Data Path:

06/10/11 07:44:31 PM

CCVI

Vial: a:5

Instrument Software Version:

Instrument Name: Instrument Serial Number: 1.4.1 Ouantum

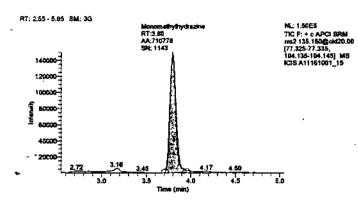
TQU01408

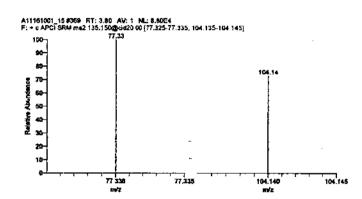
C:\XCalibur\Hydrazine

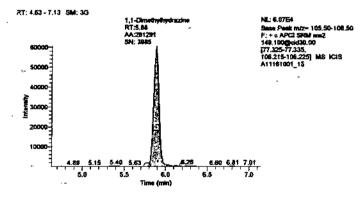
Analysis\2011June

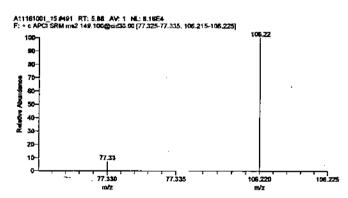
Ouan Peak Table

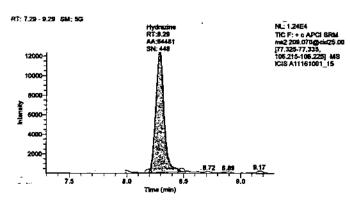
	Component Name	Calculated Amount	Units	Response Ratio	 RT
N	Monomethylhydrazine	2.556	ug/L	710777.726	 - 3.80
1,	1-Dimethylhydrazine	2.426	ug/L	281290.711	5.88
	Hydrazine	0.493	ug/L	64481.083	8.29

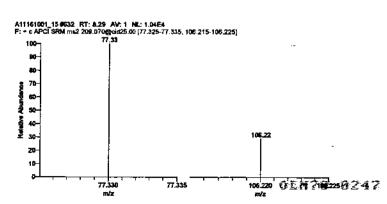












Page 1 of 1 Monday, June 13, 2011, 11:20:40



Sample Name:

CCV2

Data File:

A11161001_21

Sample Type: Run Time(min): OC. 10.98

Injection Volume(µl):

5.00

Dilution Factor: Instrument Model: 1.00

Instrument Method:

TSQ Quantum Access C:\XCalibur\Hydrazine

Operator:

Analysis\Hydraz_02

Quantum

Acquisition Date:

Sample ID:

06/10/11 09:18:58 PM

CCV2 a:6

Vial:

Instrument Software Version:

Instrument Name:

Instrument Serial Number: Original Data Path:

1.4.1 Ouantum .

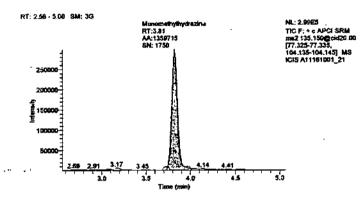
TQU01408

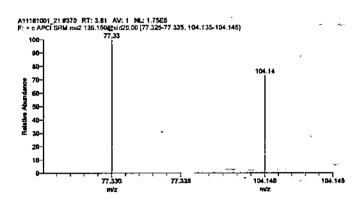
C:\XCalibur\Hydrazine

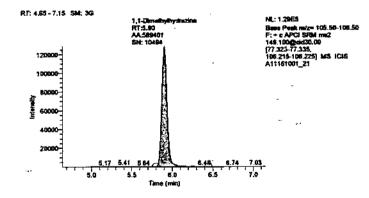
Analysis\2011June

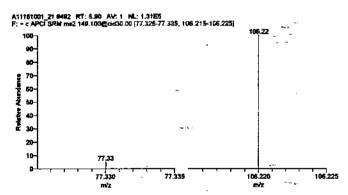
Ouan Peak Table

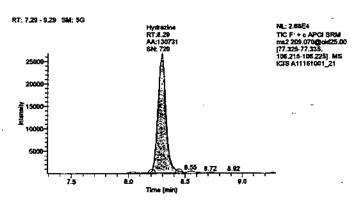
	<u> </u>	7 Amir Winds		
Component Name	Calculated Amount	- Units	Response Ratio	RT
Monomethylhydrazine	4.923	ug/L	1359715.045	3.81
I,1-Dimethylhydrazine	4.957	ug/L	589400.902	5.90
Hydrazine	0.986	ug/L	130730.530	8.29

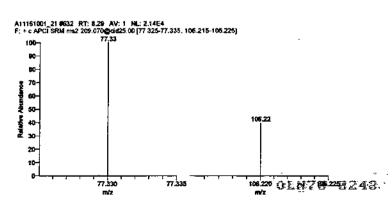












Page 1 of 1 Monday, June 13, 2011, 11:20:41



Sample Name:

CCV3

-Data File:

A11161001 30

Sample Type:

Run Time(min):

QC 10.99

Injection Volume(µl):

5.00 1.00 Dilution Factor:

Instrument Model: Instrument Method: TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz 02

Quantum Operator:

Acquisition Date: Sample ID:

06/10/11 11:40:40 PM

CCV3

a:7 1.4.1

Instrument Software Version:

Original Data Path:

Instrument Name: Instrument Serial Number: Quantum

TOU01408

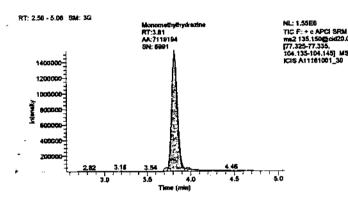
C:\XCalibur\Hydrazine

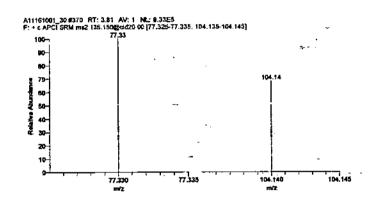
Analysis\2011June

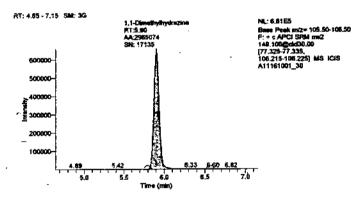
Ouan Peak Table

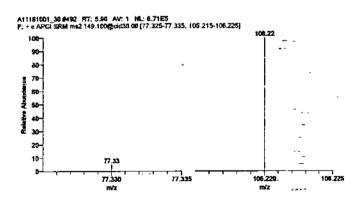
Vial:

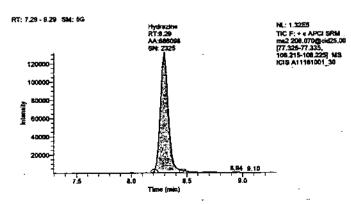
Response Ratio RT Calculated Amount Units Component Name 7119193.602 3.81 25.932 ug/L Monomethylhydrazine 5.90 ug/L 2965073.856 1,1-Dimethylhydrazine 24.473 666098,454 8.29 ug/L Hydrazine 4.972

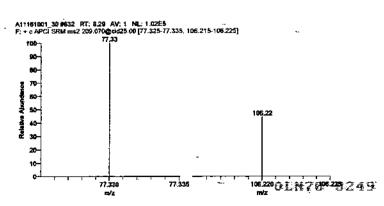












Page 1 of 1 Monday, June 13, 2011, 11:20:42

Raw QC Data



Sample Name:

BLK (reagent)

Data File:

A11161001 14

Sample Type:

Blank 10.99

Run Time(min):

Injection Volume(µl): Dilution Factor:

Instrument Model: Instrument Method: 5.00 1.00

> TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz_02

Operator:

Quantum

Acquisition Date:

Sample ID:

06/10/11 07:28:47 PM

BLK (reagent)

a:11

Instrument Software Version: 1.4.1

Instrument Name:

Original Data Path:

Guantum

Instrument Serial Number:

TOU01408 -

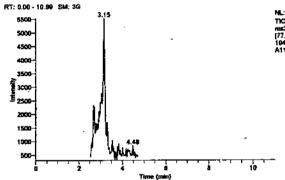
C:\XCalibur\Hydrazine

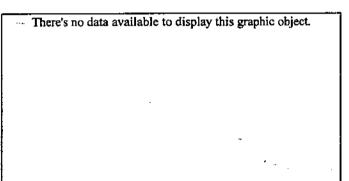
Analysis\2011June

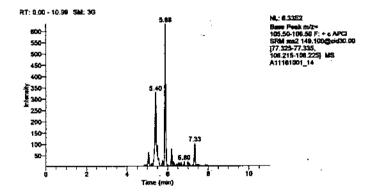
Ouan Peak Table

Vial:

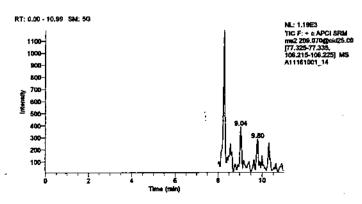
	A man 7 4m			
Component Name - Calculate	ed Amount	Units -	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	- N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A ~ ·	- N/A
Monomethylhydrazine	N/A	ug/L	N/A -	_ N/A







There's no data available to display this graphic object.



There's no data available to display this graphic object. OLA7# 8251

Page 1 of 1 Monday, June 13, 2011, 11:20:43



Sample Name:

6308069MS

Data File:

A11161001 19

Sample Type:

Unknown

Run Time(min):

10.98

Injection Volume(µl): Dilution Factor:

Instrument Model: Instrument Method: 5.00 1.00

TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz 02

Acquisition Date:

Sample ID:

06/10/11 08:47:29 PM

6308069MS

Vial:

Instrument Software Version:

a:14 1.4.1

Instrument Name:

Quantum

Instrument Serial Number: Original Data Path:

TOU01408

C:\XCalibur\Hydrazine

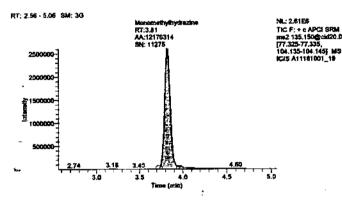
Analysis\2011June

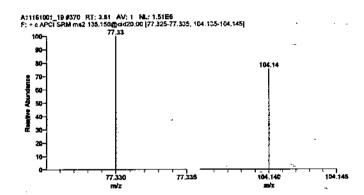
Operator:

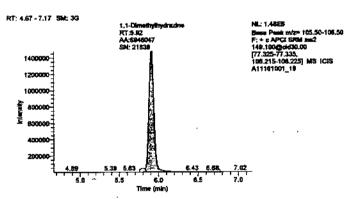
Quantum

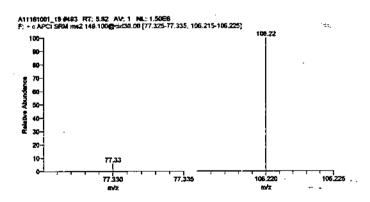
Ouan Peak Table

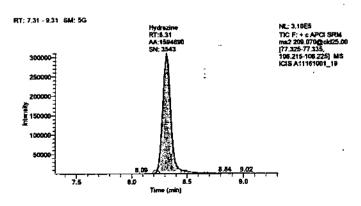
Component Name	Calculated Amount	Units	Response Ratio		RT
Monomethylhydrazine	44.378	ug/L	12176314.377	-	3.81 -
1,1-Dimethylhydrazine	57.177	uġ/L	6946046.930	-	5.92
Hydrazine	11.886	ug/L	1594689.950		8.31

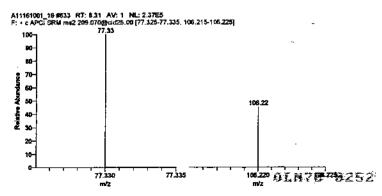












Page 1 of 1 Monday, June 13, 2011, 11:20:50



Sample Name:

6308070MSD

Data File:

A11161001 20

Sample Type:

Run Time(min):

Unknown

Injection Volume(µl):

10.98

Dilution Factor:

5.00 1.00

Instrument Model: Instrument Method: TSQ Quantum Access C:\XCalibur\Hydrazine

Analysis\Hydraz 02

Operator:

Quantum

Acquisition Date:

Sample ID:

06/10/11 09:03:12 PM

6308070MSD

Instrument Software Version:

Instrument Name:

1.4.1. Quantum

a:15

Instrument Serial Number: Original Data Path:

TOU01408

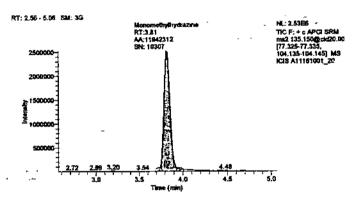
C:\XCalibur\Hydrazine

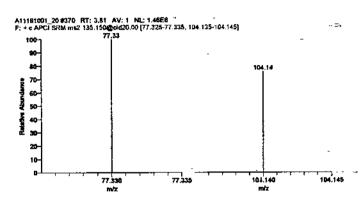
Analysis\2011June

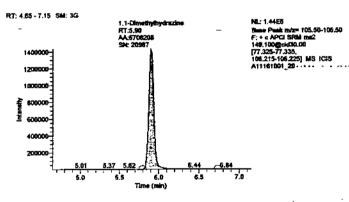
Ouan Peak Table

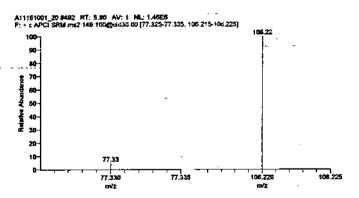
Vial:

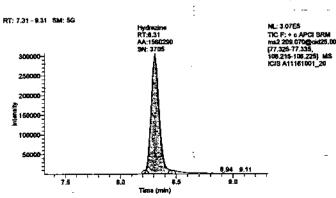
		Valid I Care	I M D I V				_
	Component Name	Calculated Amount	Units	Response Ratio		RT	
	- Monomethylhydrazine	43.525	ug/L	11942312.078		3.81	
-	1,1-Dimethylhydrazine		ug/L	6708207.989	-	5.90	
	Hydrazine	11.630	ug/L	1560290.387	-	8.31	

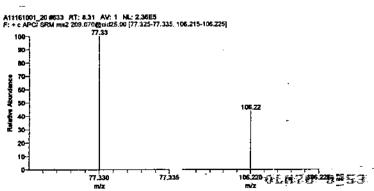












Page 1 of 1 Monday, June 13, 2011, 11:20:50

106,220 TI LAY 2 806,228 \$53



Sample Name:

ICV/LCS

Data File:

A11161001_17

Sample Type:

Unknown

Run Time(min):

10.99 5.00

Dilution Factor:

Injection Volume(µl): 1.00

Instrument Model: Instrument Method: TSQ Quantum Access

C:\XCalibur\Hydrazine

Analysis\Hydraz_02 Quantum

Operator:

Vial:

Acquisition Date:

06/10/11 08:16:01 PM

ICV/LCS

Sample ID:

a:12

Instrument Software Version:

1.4.1

Instrument Name:

Quantum

Instrument Serial Number: Original Data Path:

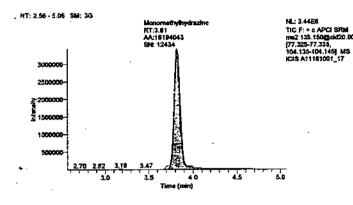
TQU01408

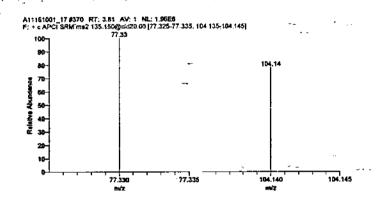
C:\XCalibur\Hydrazine

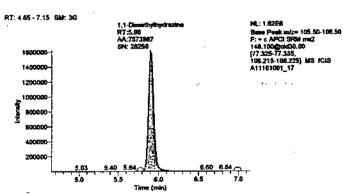
Analysis\2011June

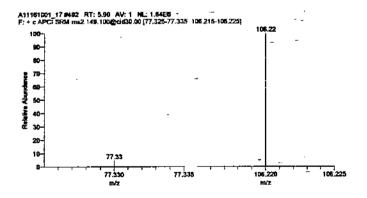
Quan Peak Table

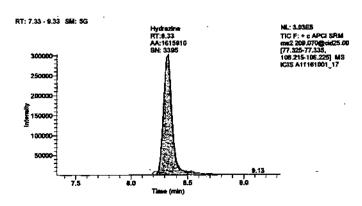
	Quan rear	K I HUIV		
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	59.034	ug/L	16194042.799	3.81
1,1-Dimethylhydrazine	62.335	ug/L	7573987.066	5.90
Hydrazine	12.044	ug/L	1615910.437	8.33

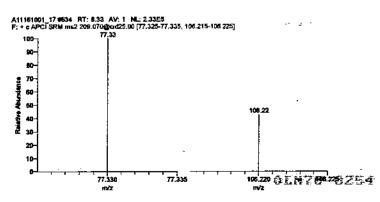












Page 1 of 1 Monday, June 13, 2011, 11:20:48

Slidzon



Sample Name:

ICV/LCSD

-Data File:

A11161001 18

Sample Type: Run Time(min): Unknown

10.99

Injection Volume(µl): Dilution Factor:

5.00

Instrument Model: Instrument Method: 1.00

C:\XCalibur\Hydrazine

Operator:

TSQ Quantum Access

Analysis\Hydraz_02

Acquisition Date:

Original Data Path:

Sample ID:

06/10/11 08:31:45 PM

ICV/LCSD

a:13

Instrument Software Version: 1.4.1

Instrument Name:

Instrument Serial Number:

Ouantum

TQU01408

C:\XCalibur\Hydrazine

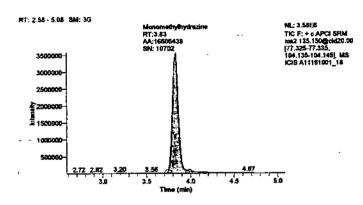
Analysis\2011June

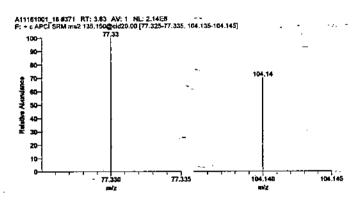
Quantum

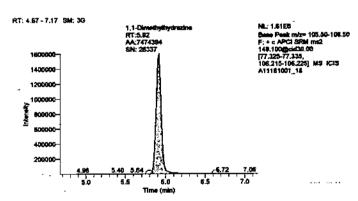
Ouan Peak Table

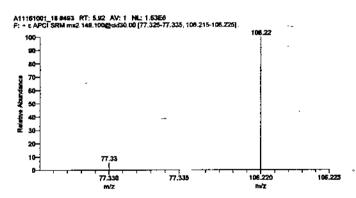
Vial:

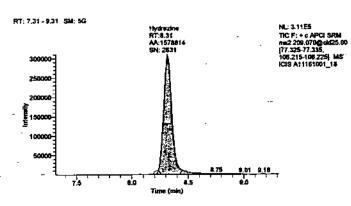
Component Name	Calculated Amount		Units -	Response Ratio	RT
Monomethylhydrazine	60.538	• • • •-	· ug/L	16606439.421	_3.83
1,1-Dimethylhydrazine	61.517		ug/L	7474393.916	5.92
Hydrazine	11.768		ug/L	1578813.767	8.31

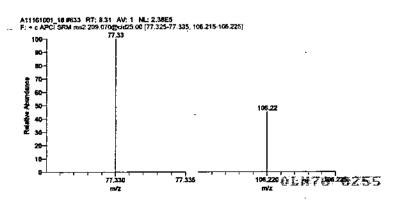












Page 1 of 1 Monday, June 13, 2011, 11:20:49

F 6/14/201

Preparation Logs

Organic Extraction Batchlog Assigned to: 2628 Meng Yu

11161001

Start Date: & [10 | 11 Reviewed by: 5/112

Start time: 1200

Tech 2: Tech 1: 144 26.38

Comments 1150 14:50 Į Ž Ϋ́ Z BC Hydrazines in Water 돒 رې ن ç, J 표 Amt FV (mL.) (mL) را -<u>ب</u> <u>بر</u> ام -00 13 22 125952-160 acl 0.0 12 59 52 - 160 MS Sol. とる NA Amt (mL) × **⊀** Z $\frac{\mathcal{L}}{z}$ * 2 SS/IS Sol. ب 2 ž بر 2 بد 2 ب ح Prep Analysis: 00000 Amt (R) Sample Code OPR161001 BLK161001 SD1--SD1-6308070MSD 6308069MS Dept: 37 BLANKA LCSDA ဗ္ဗ LCSA

7(5)	SS/IS Sol.		표(교		핊	BC	Comments	Analyses	Due Date	Prio
	± 2		<i>!o</i> ∴	5,0		145a		10342	06/17/2011	۵
i	+2	t z	<i>l</i> 5	50		>		10342	06/17/2011	Ь
ı	4.2	¥.	15.7	S		7		10342	06/17/2011	Ь
l	λλ	ź	15.1	S.		`		10342	06/17/2011	Ь
	N.A.	ر ۲	1.51	5,0		3.		10342	06/17/2011	Ь
l	N.A.	せる	1.5	5.0		7		10342	06/17/2011	Ь
	N.A.	¥ Z	Š	ŝ		7		10342	06/17/2011	Ь
	NA A	F.F	ب	ري د.		7		10342	06/20/2011	d
	NA	耋	(S)	3		7		10342	06/20/2011	Ь
	NA	★	<u>.</u>	So		7		10342	06/20/2011	Ы
	ΝA	ΝĀ	6	Sc	:	7	•	10342	06/20/2011	۵
	N.Y.	NA.	-5-1	S		7		10342	06/20/2011	<u>.</u>
	NA	N.Y.	6:4	ري ن		7		10342	06/20/2011	Ь
	43	於	<u>دي</u>	S		7		10342	06/21/2011	Ь
	Νţ	r.	5.1	9.0		7		10342	06/21/2011	۵
	NA	NA	-5.7	So		7		10342	06/21/2011	۵
	∀ ₹	λÆ	1.5	5.0		7		10342	06/21/2011	а.

OLN76

Work Station Balance # Internal Standard 32 Rack ID:

DF = Dilution Factor FV = Final Volume

Page 1 of 1

11161001

ပ

C M-vap

C N-Evap

C S-bath ID

S-bath ID

Documented temps are NIST corrected.